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PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*On the Sunburnt Appearance of the Skin as an early Diagnostic Symptom of Supra Renal Capsule Disease.* By ISAAC E. TAYLOR, M.D., Physician to Bellevue Hospital, New York. [With Colored Illustrations.]

THE attention of the medical profession has been directed by Dr. Thomas Addison, of London, in a monograph, published May, 1855, to a new form of disease in which the supra renal capsules are involved, and of so serious a nature, as to prove fatal in every instance that has been reported where an autopsy has been made, and having, as one of its most marked and prominent symptoms, the discoloration of the skin. This discoloration, according to Dr. Addison, at page 5 of his Monograph, "pervades the whole surface of the body, but is commonly most strongly manifested on the face, neck, superior extremities, penis, scrotum, and in the flexures of the axilla, and around the navel. It may be said to present a dingy or smoky appearance, or various tints or shades of deep amber or chesnut brown; and in one instance, the skin was so universally and so deeply darkened, that it might have been mistaken for a mulatto." At page 7, line 17, Dr. Addison further remarks, "that the great distinctive mark of this form of anæmia is the singular dingy or dark discoloration of the skin; nevertheless, at a very early period of the disorder, and when the capsules are less extensively diseased, the discoloration may doubtless be so slight and equivocal as

to render the source of the anæmic condition uncertain; and when, on a searching inquiry into the history of the case, no miasmatic poison can be detected, or malignant visceral disease found, and when to all this is superadded a dark, dingy, or smoky looking discoloration of the integument, he shall be justified at least in entertaining a strong suspicion in some instances—a suspicion amounting almost to certainty in others. It must, however, be observed, that every tinge of yellow, or mere sallowness, throws a still greater doubt over the true nature of the case, and that the more decided the discoloration partakes of the character described, the stronger ought to be our impression as to the capsular origin of the disorder." I have copied these quotations from the monograph of Dr. Addison, as it is probable but few have met with it, and they are given in his own language, for I have not been able to discover, in his essay on the subject, the term "bronze" applied as it appears to have been given to the discoloration, by Dr. Jonathan Hutchinson, in the report of his collected cases, published in the *Medical Times and Gazette*, of London, 1855 and 1856. Though the application of the word "bronze," to the character of the discoloration, might appear proper, yet it could only be in the more advanced cases, for in the early stages of the disease, I have not been able to recognize its adaptation, and even in the advanced cases, the analogy to the color of the mulatto, or rather of a West Indian, seems more correct and just. In the quotation from page 7, line 19, reference is made to the color, "doubtless being so *slight* and *equivocal*, as to render the source of the anæmic condition uncertain;" and on page 8, line 1, "Every tinge of *yellowness*, or mere *sallowness*, throws a still greater doubt on the true nature of the case." On examining the cases of Dr. Addison, it appears that the discoloration had existed for some length of time, and in some it was not recognized till after death; and that they were not therefore seen in the early stage of the discoloration and disease, and I believe it will be shown that the dingy, or smoky, or deep amber, or chestnut-brown, or mulatto appearance of the discoloration, becomes quite characteristic when the disease is of a chronic nature.

In the publication of the cases which have come under my observation, I would particularly wish to call the attention of the profession to the discoloration of the skin, and the pigment on the lips, as I believe in the early, and in two cases in the incipient, stage of the disease.

During my term of service in Bellevue Hospital, for the months of June and July, six cases were observed, and the seventh is at present in the New York Hospital; to the latter case, Dr. John Watson was so kind as to ask my attention. From the history this patient gives of the discoloration, we learn that it has existed for a year, though, during the last three or four months, it has shown itself more generally over the whole body, the scalp being free, and has the dark line on the lips—resembles in appearance the color of a mulatto. This was the case also in a patient of Drs. J. M. Smith and Bulkley, which was reported by Dr. H. D. Bulkley, in the *New York Medical Times* for September, 1855, and entitled "*A Case of Change of Color of the Skin, in a Young Man, from White to that of the Mulatto,*" and the disease, in this instance, had existed for more than a year, but had not been recognized as having any relation to the supra renal capsules. Since my attention was given to this subject, I have learnt the early history of this patient, which will be referred to in another part of this paper. During the second or third day of my attendance at the hospital, a case similar to the first case reported (that of White) was noticed, and though believed to be this form of disease, was not distinctly diagnosed, but from the exact resemblance to Thomas White, who came into the hospital, June 13, I have now not the slightest doubt of the correctness of the opinion formed at that time.

Case 1.—Reported by Dr. Saunders, House-Physician.—Thomas White, æt. 22; laborer; native of Ireland; single; admitted into Bellevue Hospital, Ward No. 10, June 13, 1856; had been a moderate drinker; his mother died of phthisis; the other members of his family were healthy. He had a cough some three years ago, and spat up some blood at that time. His cough left him, and he was not troubled with it much afterwards. The lymphatic glands of the neck became enlarged and suppurated at this time. He lived in part of the city where intermittent fever was prevalent, and says he had it for a very short time before entering the hospital. He never had any chills after admission. When he entered the hospital, his face and neck were of a light sunburnt hue; was very feeble and emaciated, and complained of pain in the right side; no cough or expectoration; pulse, small and weak; the eyes presented a sickly and pearly appearance; the palpebræ conjunctiva were quite anæmic; his bowels were constipated, with a little nausea and vomiting, retching, as he termed it, occurred sometimes. He would

vomit frequently without any evident cause, and was sometimes flighty. There was no epigastric tenderness. A physical examination of the chest was made, when there was a slight pleurisy found on the right side, where he complained of pain; but no evident signs of phthisis. The treatment, after he was relieved of the pleurisy in a few days, was of the tonic order, as quinine, iron, bitter tonics, and good nourishing diet. Dr. Taylor, on seeing him, advanced the opinion, judging from the color of the skin, and other symptoms, that it might be disease of the supra renal capsules, as described by Dr. T. Addison. He seemed to mend under the treatment for a while; and was able to walk about the yard. The color of the skin grew darker, if anything, and he always complained of being weak and languid. Two days before his death, his friends came to visit him, and brought, without permission, two small bottles of brandy, of which he partook quite freely, with marked exhilaration of feelings. After getting sober, he said he felt very weak; I noticed he was heavy and drowsy, and continued in this condition for twenty-four hours; his bowels had not been moved or his bladder emptied, and on introducing the catheter there was no urine found. There was some tenderness over the region of the kidneys. Dry cups were applied, and a purgative enema; he, however, became comatose, and died at 6 P.M., July, 26.

Autopsy, fifteen hours after Death.—Rigor mortis moderate, emaciated. The discoloration of the skin was most marked on the face and neck; there were slightly darker tinges about the axillæ than other parts of the body; on the right side of the abdomen there was a patch of the size of the hand, of a light shade. On opening the thorax and abdomen, the viscera were found occupying their relative positions. There were several old bands of adhesion on each side, uniting the pleura to their respective parietes; at the apex of each lung were old cicatrices, and through each were scattered a few tubercles. The heart was normal in size and thickness; liver, natural in size and color; spleen, the same; large and small intestines, with stomach, healthy to all appearance.

While extracting the left kidney, we noticed some pus emerging near its upper part, and on closer examination, after removing the left kidney, capsule, and the pancreas together, we found it came from the left supra renal capsule. The capsule had in it a deposit, which proved to be, under the microscope, tuberculous matter. The kidney was pale;

cortical substance deficient, and had undergone some fatty degeneration; the right kidney was fatty, the supra renal capsule had undergone a tuberculous degeneration, but was not so much broken down as the left. Weight of left kidney and capsule, $8\frac{1}{4}$ oz.; of the right, $7\frac{1}{2}$ oz.

Remarks.—The appearance of White, as to his physical constitution, presented a tuberculous diathesis; there was some emaciation. The expression of face was dull, listless, and rather stupid; he answered questions slowly, hesitatingly, and would drawl out his words; his mind was feeble. The expression of eye was sickly, earthly; wanting the natural hue and expression. The conjunctiva oculi et palpebræ was pearly, anæmic, and contrasted markedly with the color of his face. The discoloration, when first noticed, was of a light sun-burnt appearance, of a *dirty* shade of yellow, and extended across the centre of the forehead and no higher, being a perfect line of demarkation, to the natural color of the skin. The whole of the scalp was free. The sun-burnt discoloration extended down the temples, along the side of the cheeks on both sides, around the lower portion of the ear, and then to the back of the neck, and engaged the whole neck as low as the half of it. The ears were free, and all the lower part of the scalp. In truth, he was a perfect representation of a man who had been exposed to the sun with his hat on, divested of the cravat, and with collar turned over, and only that part that could be exposed was discolored. The shade and appearance of this color could not be better marked; the posterior part of the neck, and the lateral sides of the cheeks and forehead were the darkest, as though it had been of a longer duration. The spots where the glands of the neck had suppurated, remained free. Every week the appearance of the discoloration became of a more deep and sunburnt character. The upper and lower lips had, when first noticed, several small, darkish red spots; three or four on each lip. These spots were on the outer edge of the lips, and gradually became darker by degrees. They were distinctly evident to a number of the students whose attention was directed to this feature of the case, as aiding in the diagnosis. They appeared very different from the lips in ordinary anæmia or cachetic state, and induced me to feel a stronger conviction in the opinion I entertained of the nature of the disease. The back of the hands also presented the same appearance, which extended to the wrist, the inside was free. There was no albumen in the urine, though

he died in a state of coma, indicating the nervous system was strongly affected. The result of the autopsy verified the diagnosis, and I regret I was prevented from being present at the time. The kidney and the supra renal capsules were given to me for inspection, and they were both found in a state of tuberculous degeneration. The left more so than the right. The left capsule was much larger than natural, being of the size of half a large hen's egg. On cutting through the capsule, there was but a few lines of thickness of the cortical structure, it contained a solid and a semi-fluid mass of a yellow color. The whole medullary structure was gone. The right capsule was not so large, and two-thirds of the capsule consisted of concrete tuberculous matter, the rest being semi-fluid. Under the microscope, nothing was developed but what would appertain to tuberculous degeneration as broken up cells, fatty matter, and granular particles. There was no original trace of the natural organ. The left capsule weighed 4 drachms. The result of the post mortem as to the character of the disease showed the supra renal capsule to be involved in disease, as was anticipated from the tuberculous diathesis which the patient presented.

Case 2.—Reported by Drs. Saunders and Janes, House Physicians. George Comb, æt. 42, laborer, married, native of England, was admitted into Bellevue Hospital, June 24th, 1856. Has had no hereditary disease; never has drank much; has always been tolerably healthy until six months ago, when he had what he termed "sun-stroke," and after working for some time in the sun, became very weak and dizzy in the head, which caused him to sit down, and then cease from work. When he came into the Hospital, he looked quite anæmic, eyes pearly, tongue pale and broad, in other words, he had the appearance of a patient suffering from albuminuria, considerably advanced. His bowels were constipated; his urine was tested, and a small deposit of albumen was found, the specific gravity 1.010. Skin dry, without perceptible anasarca or ascites. Mild diuretics, ferruginous preparations, and bitter tonics, was the treatment adopted. After being in the wards over two weeks, Dr. Taylor noticed that the lower part of the forehead began to have a sunburnt appearance, and this gradually extended over the whole of his face. There was on the body small spots which resembled very much the appearance of a faded syphilitic eruption, though he protested that he had never had the disease. He gradually grew worse, and after having

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GEORGE COMB.

two convulsions, died in a state of coma, Aug. 4th. Two ounces of urine were removed from his bladder a short time previous to his death; specific gravity 1.010, and albuminous.

Autopsy ten hours after death.—Weather cool, rigor mortis well marked, much emaciation, color of the face not quite as dark as before death. The upper lobe of the left lung was consolidated by miliary tubercles in the first stage; in the apex of the right lung were cicatrices of old tubercular excavations; heart healthy; liver fatty to some extent; spleen much enlarged, weighing 1½ lb.; kidneys pale and in the last stage of fatty degeneration. The left supra renal capsule was almost completely atrophied, being less than a fourth its natural size, and broken down into a grumous mass; the right was somewhat smaller than natural, had lost its natural color and become a dark chestnut, on cutting it open it was found that the greater part of the organ had become broken down into a grumous semi-fluid mass, leaving only a thin part of healthy tissue.

Remarks.—The case of George Comb is one of the most interesting of this form of disease, having chronic disease of the kidney, when he came into the Hospital, which in the course of a few weeks terminated his existence. The post mortem revealed a fatty degeneration of that organ to the eye and by the microscope. The discoloration of the skin, in Comb's case, commenced between two and three weeks previous to his death, taking its rise on the centre of the forehead, as if he had been exposed to the sun, and was in marked contrast at this early period, to his clear, white, and anæmic skin, particularly so, as he was quite bald. The pigment gradually extended itself from the forehead, on both sides of the face, down the cheeks to the side of the neck, avoiding the ears, to the posterior part of the neck. The lips at the juncture of the mucous membrane and the skin, began also to exhibit the light reddish line. Nothing could be more plain than the commencement, and the progress of the discoloration, pursuing to all appearance, as symmetrical a course almost as that of erysipelas, differing from that disease in its externally manifesting its appearance, as though the pigment was there, and only required to be eliminated by the action of the atmosphere, to become more distinct and positive in its characteristic features of tint. In three weeks it had become like a perfect recent sunburnt color, showing the rapidity with which it may manifest itself, its extent and locality. After death it faded in its color so much

that in twenty-four hours, when I saw the body a second time before its interment, there was left but a light dirty yellowish, though quite characteristic, discoloration. The spots that were noticed on various parts of the body, but more especially on the back, were of a darkish yellow, and looked like one of the forms of psoriasis, though it had no furfurous character. From the investigation of the urine, with its light specific gravity, and the slight proportion of albumen, it was not expected that he would survive long, and the kidney affection was the chief, if not sole, cause of his death. But it was exceedingly gratifying to perceive the pigment manifest itself, thus rendering strong the probability that the supra renal capsules were beginning to be involved in disease which would hasten on his dissolution. This opinion was corroborated by the autopsy.

Under the microscope nothing definite was discovered to throw further light on the subject, although corpuscles, irregular cells, small portions of anaphous matter, and some oil granules were also found, and there was but a trace of healthy tissue left, while the whole of the medullary structure was gone.

These are the only two cases I have as yet been enabled to verify the diagnosis of the nature of the disease by post mortem examinations, and I think they bear additional testimony in corroborating the opinion of Dr. Addison, and showing the relation of the discoloration of the skin to the disease of the capsules. By a further illustration of the subject, especially in reference to the pigment deposited, I would wish to add a short history of two of the other cases which are still in the Hospital. Colored lithographic plates of these two patients have been drawn from ambrotype likenesses, for the purpose of showing the sunburnt appearance of the skin, and the line of demarkation, in the early stage particularly in the case of Bishop, which did not exist when his likeness was taken more than five weeks since, and in Comb after death. The remaining patient in the hospital is too enfeebled to have his likeness taken, and from his appearance, his life will not be of long duration. Being of a chronic nature, the pigment in this case, corresponds with the man in the New York Hospital, in which patient the discoloration pervades the whole body, with the exception of the scalp, and also shows the line of demarkation. In these two patients the color of the skin corresponds with the first case of Dr. Addison, resembling the skin of a mulatto. Had

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PETER BISHOP.

I supposed that so many cases, numbering seven, would have been met with, (and including the patient of Drs. Bulkley and Smith, which I think we might correctly do, from the very early history I have of it, from his uncle, after his nephew returned from the country, and his description corresponding so perfectly with the cases of my own, in all respects, that when related before several of the medical staff of the Hospital, it was apparent, that it was the same disease fully advanced, the number would amount to eight.)—I would have had the first case lithographed, and the appearance of the post mortem changes in the capsules, also represented, though I think it would have availed little, as the capsules in both cases, were so destroyed.

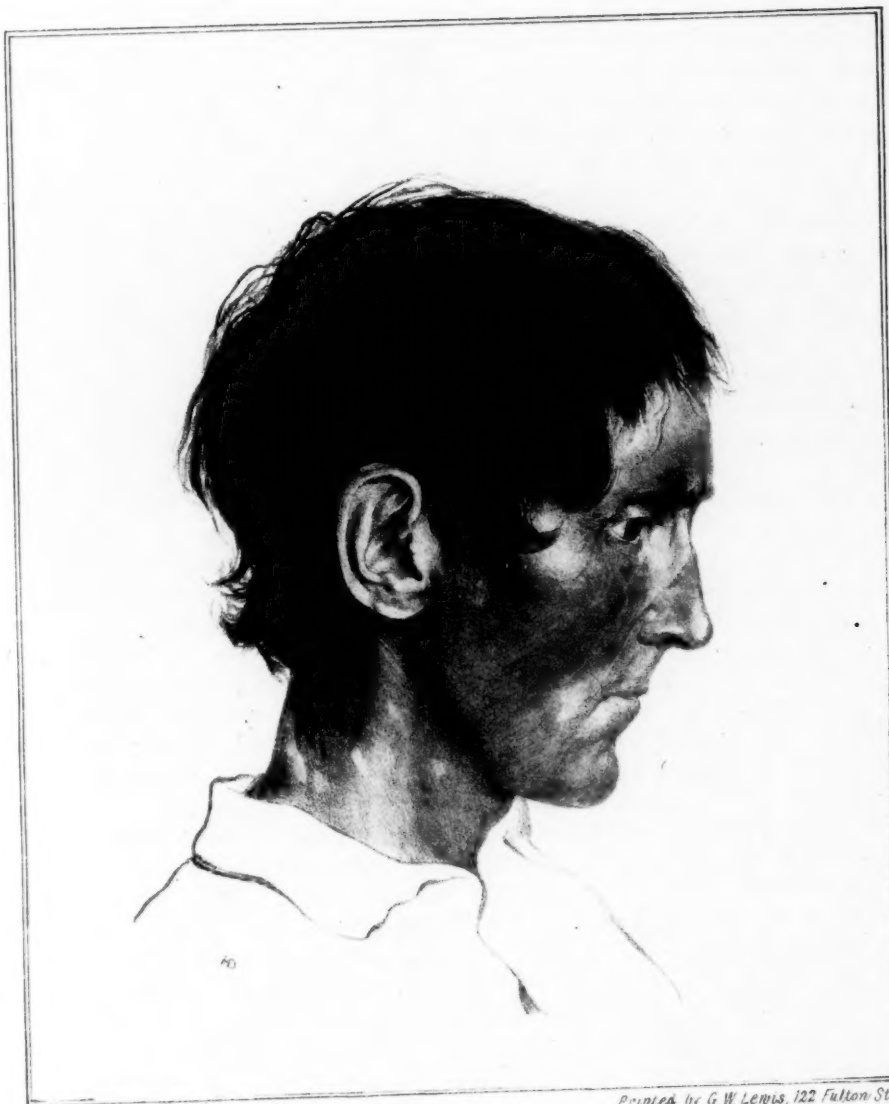
Case 3.—Reported by Dr. Janes, House Physician. Peter Bishop; barkeeper; Irishman; æt. 28. Admitted to Ward No 3 of Bellevue Hospital, July 1, with lead paralysis of the wrists and hands; says he has always been healthy, with the exception of the paralysis, from which he has suffered before, and been cured. In both instances it was caused by drinking beer drawn through lead pipes. About the middle of June, he first noticed that his face began to change color, as if it had been tanned by the sun; it has gradually been growing darker and darker, up to the present time. The discoloration began about the middle of the forehead, and extended over the whole face, except a circle of half an inch around the eyes, which remains of a natural color. The patient eats, drinks, and sleeps well; he says he feels perfectly well except his paralysis; he is not emaciated.

Remarks.—The colored lithographic plate which represents Bishop, gives a beautiful description of the sunburnt hue of skin, and shows the line of demarkation on the forehead, and the lips and which is so peculiarly manifest also in the case of Comb, and was marked in all the others. The pigment, in the patient Bishop has not yet extended to the neck, but it is beginning to be perceptible, and doubtless will become so before many weeks have elapsed. The color on the lips is very marked, at times more so than in some of the others, it is about two lines in breadth, and when the lips are expanded, appears distinct; there is no discoloration on the body; and there would be nothing to call attention to his condition of health, but this sunburnt appearance of the face, as he feels well, except his paralysis. It is a case, I think, of much interest in tracing the development of the disease, and as showing how serious and fatal a disease may

exist, judging from the result of eighteen post mortem examinations, and not be recognized till it is far advanced. But I fear that when we realize the result of these other cases, that the stamp of fatality is impressed upon them even at this early stage of the disease. How important, therefore, is it that in the investigation of disease, the early features of it should be recognized? If not important to the patient himself, that an intimation of his disease be imparted, it may be especially so that his family be apprized of the fatality, in all probability, of his disease.

Case 4.—Reported by Dr. Saunders, House-Physician.—Ezra Bonnel, aged 55; native of New Jersey; boilermaker; married for fifteen years; has been a temperate man for fifteen years, previous to that was a hard drinker. His mother committed suicide; father died in his seventy-third year. At twenty-one, he had yellow fever, and soon after bilious remittent. After recoverving from that disease, he remained well until nine years ago, when he had a cold on the lungs, probably pleurisy, which confined him to the house three months. Three years ago he had rheumatism in the left arm and leg, but was not confined to the bed with it. About two years since, had a return of the rheumatism and was kept from work by it for a year. On the 7th January last, he slipped and fell on the ice and broke his left arm, and was treated in this Hospital. He has been feeble since that time, and has done no work since he left the hospital. He re-entered the hospital, July 25, complaining of pain in the side and debility.

Remarks.—Ezra Bonnel, from whom a colored lithograph was made, from an ambrotype, appeared, when first seen, much enfeebled and emaciated; he converses slowly, hesitatingly; utters his words in a drawling manner; appears of feeble intellect, and action of mind. He appeared very differently when in the hospital before. The aspect of countenance, and expression of eye, are sickly; there is great want of natural liveliness; conjuntiva pearly, or deadly white, which appear in singular contrast to the discoloration of the skin, and which he did not know existed till his attention was called to it. He makes no complaint of any disturbance of the stomach; bowels regular. He looks as though he would die with exhaustion, without any evidence of serious disease existing; has the same general appearance of physical constitution as White; retains his seat by his bed nearly all the time, for his inability to walk much, though he goes out occa-



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EZRA BONNELL.

sionally; is listless and feeble. We have here the same dark sunburnt appearance of the skin, occupying the same locality on the face, though the line of demarkation, instead of being distinct and even, rather shades off; the whole of the scalp and ears are perfectly free, and of the natural color. The spots on the lips also have the dark brownish color on them, and have become dark since he has been in the hospital. The hands, on the back part, are of the same color. In fact, he is a "counterfeit presentment" of Thomas White.

The 6th patient, in Ward 12, is a German, very much enfeebled, of whom mention has been made, has been an invalid for a number of months, and is in a debilitated state.

From the number of cases here given of the discoloration of the skin, and with two post mortem examinations, which proved them to be connected with the supra renal capsules, and the rest having all the general features of the two cases of that disease, I think it will be perceived, that they differ from the lithographic representations as given by Dr. Addison. This difference is still more apparent, when we consider that we had the opportunity of observing the pigment deposit itself in the patient Comb, whilst under treatment for renal disease, and of noticing the election of its seat to commence on the forehead, with a clear and distinctly marked line, and on the lips; and in the case of Bishop, which has only existed five weeks, and noticed by him one week before he came into the hospital; and that of White, for two or three months previous to his admission; and next, in that of Bonnel, and all these patients presenting the same sunburnt appearance, commencing from a light shade of tanning and progressing to a darker hue, and which are beautifully illustrated in the portraits of Bishop, Bonnel, and Comb. The discoloration of the skin could not have occurred from the effects of the sun in the case of White, as he had not been exposed to the sun for the last three or four months, and had not noticed the change of his skin till his attention was called to it; and from the length of time he was in the hospital, if that had been the cause, it should have become paler. And again, in the case of Comb, we were enabled to justify the opinion entertained that the discoloration pointed to both capsules as the seat of the disease —for in all the kidney affections I have seen, I never noticed this coloration of the skin before, showing they had become involved before death. In the representations of Dr. Addison, there is no line of separation visible on the forehead,

but in his cases, the pigment embraces the whole of the scalp and ears. This was not the case in the patient at the New York Hospital, for we had the line of demarkation very evident, and also the pigment on the lips, although the whole body is tinged of a mulatto color. The general history of the cases correspond with those of Dr. Addison, except the appearance of the skin, and the emaciated condition of all the patients, except Bishop. The emaciation is not as great as is noticed in phthisis, though it is very distinct. Dr. Addison's plates represent a dirty brown or mulatto or West Indian color, and all his cases have the scalp tinged except case 9, which appears to have been free or not continued to the face by the lithographer as the whole face is not lithographed.

Dr. Jonathan Hutchinson, in his series of cases published in the *Medical Times and Gazette*, for December 1855 and 1856, has appropriated the term "bronze" to the discoloration, which, as he conceives, "conveys a good idea of the exact character of the appearance of the skin in the disease. He compares it "to the color of a bronzed statue from which the gloss has been rubbed off." This, it appears to my mind, and many of my professional friends who have seen them, as inapplicable to the cases I have reported; and I think it would have a tendency also to cause the disease to be overlooked in its early stage, if that appearance of skin was sought for and expected to be found as diagnostic of the disease in its early stage. From the cases reported by Dr. Addison and others, and my own, it will be remarked that this affection may spring up whilst another disease is progressing; and that it may, and generally does exist as a disease by itself; that the disease, judging from the number of cases that have come under my observation in the course of two months' service in the hospital, cannot be very rare; that it must have existed in many cases which have never been recognized; that the discoloration may take place in rather a rapid manner, when the disease may be of an acute character, and that the discoloration may be gradual in its appearance, and become extensive when the disease is of a chronic nature, and exist for, it may be, years, owing to the peculiar diathesis of the patient, whether of the tuberculous or cancerous or fibrous, as nearly allied to the rheumatic; that it requires a longer time for the development of the pigment when it becomes of the mulatto or West Indian hue, and more universal, while in the early stage it is like a person who is sunburnt, and further, that the result of all the cases have pro-

ceeded to a fatal issue, though there is one case reported by Dr. Peacock, in which it is stated by the clerk who made the post mortem, that the supra renal capsules were healthy (this statement, I find, according to Dr. Hutchinson, in the *Medical Times and Gazette*, May, 1856, page 519, was not correct, and that the organs alluded to were not examined), so there is, therefore, no instance, thus far, in all the cases that have been recorded, amounting with my own to thirty-seven, and in which there were eighteen post mortem examinations; that in all these eighteen cases, fourteen of which both the supra renal capsules were diseased, and in four only one of the capsules was diseased; and there has been no case recorded, where this morbid change occurred, and the discoloration of the skin existed, of a recovery; and not a single case has been noticed where these bodies were diseased and the discoloration did not exist also.

Respecting the diagnosis of the discoloration of the skin in this affection, there might be some difficulty in arriving at a correct decision in the instances of persons who have been sunburnt. But in cases of this nature, the ears and the hair have undergone some change—which does not, in this disease, exist, in its early stages—as we have seen in all the instances I have recorded, and as many medical gentlemen have also observed, where the sunburnt appearance from nature exists. The general health is good, and the nervous system not impaired; the lips free from the pigment which all of the patients in this affection have. In the case of Bonnel, who appears at present to enjoy tolerably good health, even at this early stage, the pigment of the lips is clearly marked, when stretched distinctly so. If the pigment on the face does not extend, or grow much darker, though otherwise having the characteristic marks, it is possible that only one of the capsules may be affected, and thus it may remain in this form for a great length of time, and the disease may be prolonged even to two or more years.

In pityriasis versicolor the patches are smaller, not as diffused, show themselves on the breast, shoulders, partly on the neck, and existing sometimes slightly on the face—not unlike the freckles or discoloration in females during gestation —itches at times, and has also, sometimes, a slight, furfurous scale; and, lastly, the presence of a microscopic fungus, similar in structure to the parasite of tenia favosa, and to other mycodermatous growths, which discovery has been made by Eichstadt, and where this is sought for and found

no doubt could exist; the history of the case must here be taken into consideration. Another source of difficulty might seem to be the dirty, sallow appearance of the skin in miasmatic, and in the various forms of malignant cachetic, disease, but to the early stage there can be no comparison; and in the advanced stage, the color is so marked that it would not admit of error.

The microscopic examination of the skin, by Prof. J. C. Dalton, jr., in the case of Drs. Bulkley and Smith's patient, showed the coloring matter found to be deposited in a granular form, and could not be distinguished from a mulatto, and it is believed that it is recognized that the color in the mulatto is dependent upon a special arrangement in the organization of a certain tissue of the skin; that pigment cells of a dark color is secreted in the form of fine granular matter, instead of being uniformly diffused through the tissues.

Respecting the anatomy of these organs, we know that different opinions have been entertained regarding their structure and the relation they bear to other organs and their physiological action.

In their structure they approach nearest to the blood vascular glands; they are composed of two different substances, cortical and medullary; the form is compact, and is of fibrous aspect, and tears readily; its color, of a whitish yellow, or yellow in the innermost third, passing into a brownish yellow, or brown, so that when a transverse section is made, two layers may be distinguished an external, bright-colored layer, and an internal, narrow, dark border. The medullary substance is of a grayish white with a tinge of red, although when its veins are full of blood it may assume a darker and more venous hue. Its consistence is softer than the cortical, though not so much so as is generally believed. In the dead subject, the cortical substance readily becomes detached from the medullary, when the supra renal gland presents a cavity, according to Kölliker, occupying the entire organ and containing a dirty pultaceous substance, derived from the half disintegrated brown layer of the cortex, mixed with blood, together with the less altered medullary substance, and which, however, in more rare instances, also becomes broken up. If this is the appearance of the result of death, as described by Kölliker, it will appear difficult to recognize whether in some instances it results from disease in the organ in its acute form or early stage. It has, however, been shown by Dr. Wilks, of London, that in persons who have been killed by accident

the central medullary portion has nearly a grayish white color, and on those who have been the subjects of cardiac or pulmonary obstruction, or in those long dead, the centre has been generally red and soft. This, however, is not sufficient to account for the different appearance met with, and it still remains to be decided, whether this be due to disease, age, or post mortem changes.

Some anatomists have supposed they had no excretory ducts, while others, such as Bartholin, Vauquelin, Peyer, etc., believed they had, and accordingly they communicated with the testicles and ovaries; with the thoracic canal, by Kulmus; with the pelvis of the kidney, by Heuerman and Bendt. Cassan and others have asserted that the supra renal capsules were larger in the Negro than the Caucasian race, and their medullary substance darker; and Meckel has found this to be the case in the negress but not in the negro. Those who admit an excretory duct to the genital organs, necessarily connect the renal capsules directly with them, and Meckel has observed their simultaneous and considerable development in several orders of mammalia, and this has suggested the same idea to himself, but he was unable to describe the mode in which the supra renal capsules and the general organs coöperated.

Vauquelin has found the capsules ossified in a cat from whom the ovaries had been extirpated. Lobstein, that of the left capsule triple the size, by a chalky mass, in a man who had long been affected with syphilis; and in two individuals, according to Meckel, who were addicted to venery, they were unusually large; and in a deformed female, after parturition, in whom the uterus and ovaries were atrophied, they were also atrophied. Otto has seen them twice the usual size in one case, where the ovaries were much developed. Treviranus considers them as imperfect rudiments of the genital organs. Sometimes there is but one capsule, and sometimes they increase in number and resemble the spleen in this respect; but it is believed to be difficult to determine whether this state be only a simple division, or as a real increase of the capsule. Rokitansky has observed that accessory supra renal capsules, indicating an apparent excess of development, are of frequent occurrence, and several flattened accessory capsules are then found on the renal and solar plexus, and on the ganglion of the latter nerve, varying in size from a millet to a hemp seed.

In the morbid anatomy of the cases reported by Dr. Addi-

son and the series of Mr. Hutchinson, and in the two cases published since in the *Med. Times and Gazette*, for June, 1856, and the two cases of my own, it will be observed that these bodies undergo the same process of disease from an inflammatory action through its regular changes, suppuration and induration, and also through the various organic changes incident to lymphatic glands, and glands of this nature, such as tubercle, cancer, cystic degeneration, and, as supposed by one or two authors lately, having a form of degeneration peculiar to the gland itself. But from the evidence before us of eighteen post mortem cases, there have been more of the tuberculous degeneration than any other, and as a general rule I am inclined to believe that if not of an acute nature, this result will characterize most frequently that form of degeneration, as this form of cacchexia prevails more extensively than any other, except the cancerous, for the history, progress, and termination of the disease, shows a cachetic condition, and not anæmic, as described by Dr. Addison. On account of their vascularity, hæmorrhage not unfrequently occurs. But it is rare to see a case in the inflammatory state, according to Rokitansky, as, in consequence of inflammation, they become adherent to the kidneys. It is also rare to find a congenital union of the kidneys and capsules, and in that instance the same tunica albuginea invests the two, and they are united by only a cellular tissue.

It is very evident, from the results of investigation of the cases brought before the medical profession, that these small bodies, when diseased, play an important part in the economy of man, undermining the constitution and hastening on to dissolution; and as we perceive, where both of the organs are involved, no treatment has been of any avail, for when the visible and prominent coloration of the skin presents itself, an unfavorable issue would seem to be indicated.

At the present day the function of these organs is not recognized, nor has any light been thrown on their physiology, although Kölliker has given more attention to them than any of the prominent physiologists of the present time. The conclusion to which he has arrived, is that in view of the absence of all physiological indications, and so long as the course of the nerves in them is not more accurately known, only very general deductions can be offered. But he considers "The *cortical* and *medullary* substance as *physiologically distinct.*" The former may provisionally be placed

with the so termed "blood vascular organs," and a relation to secretion assigned to it; while the latter, the medullary, on account of its extremely abundant supply of nerves, must be regarded as an apparatus appertaining to the nervous system, in which the cellular elements and the nervous plexus either exert the same reciprocal action as they do in the gray substance, or stand in a relation as yet wholly unascertained towards each other. Leydig joins with Bergman in believing that these capsules are closely related to the nervous system and that these organs bear the same relation to the ganglia of the sympathetic nerves, as the pituitary body bears to the brain.

In connection with the present subject of the pigment which we notice existing on the skin of patients laboring under disease of these capsules, and the great impression made on the nervous system, as we perceive through the marked impairment of the physical constitution, the weakness and feebleness of the powers of the body, the general lassitude that exists, the feeble and slow action of the mind, the stupid manner and expression of thought, the unearthly and sickly aspect of the eye, the method of death, either by exhaustion, as in cases of advanced anæmia, or through the cerebro-spinal axis, or by coma, we are disposed to entertain the belief or opinion, that if the suggestion of Prof. Kölliker be true "that the cortical and medullary substances are physiologically distinct," it may, or will, in the course of time cast much light on the subject, and aid in solving the principal feature of the case, why and how this pigment is deposited, and its relation to the supra renal capsules. Now, if, as we perceive, in this disease, the nervous system is so much involved, the body and mind both impaired and depressed, when the affection has existed for a few months, and the medullary substance is considered as being nearly allied in its function and relation to the nervous tissue, I would suggest this part as being physiologically distinct from the cortical, and to be the "*fons et origo*," of this depressed and impaired state of the nervous system. On the other hand, as the cortical substance is believed to belong to the "blood vascular organs," may this not be the "*fons et origo*" of the pigment we see so distinctly evident on the skin? It seems to give color to the appearance of a tendency to an elucidation of the difficulties involved in the relation the discoloration bears to the disease of the supra renal capsules. But we leave this point for further investigation,

though the idea may be entertained, as the physiology of the organs is considered not yet determined, and its function, according to the latest authority on the subject, unknown. From the facts, therefore, lately presented to our attention by Dr. Addison, and which have in so many instances thus far been verified, that there appears to be a relation or connection between the discoloration of the skin and the capsules the thought presents itself to my mind, whether it may not be possible that a still further application of the subject in the discoloration of the skin, which we see in gestation, on the face, hands, around the nipple, the abdominal line, navel, vulva, etc., etc., may not have some connection with these bodies, though of a temporary nature; I think the suggestion has some bearing, when we come to reflect on the connection or relation pregnancy has with the kidneys, producing in them a temporary congestion, and to such an extent that albumen may be deposited in the urine, and produce convulsions as is sometimes the case. Now this temporary congestion of the kidney, during gestation, may exist as early as the first week, and therefore proceed not from mechanical pressure on the principal arterial and venous vessels as is generally supposed. An instance of this nature has lately came under my observation, where the skin had continued to be deprived of its natural function for two months, and albumen was discovered to exist, though the lady was only advanced two months and one week, and while under treatment in the course of two weeks, ceased to exist and still continues free from it. If, therefore, when the kidneys become congested during gestation, even in its very early stage, may it not be possible, from the contiguity of the supra renal capsules, they may become involved or may they not themselves become slightly affected, as we perceive other organs do in this state, sufficiently so to allow the discoloration, incident to pregnancy, to exhibit itself? It seems to me there is a feasibility in the suggestion that may admit of further illustration from the remarks we have made; and from the investigations of Meckel on the mammalia, and his observations on the human subject, and the case of Otto and others, shewing the relation they both bear to the genital and uterine organs; the case of Comb, where it occurred during renal disease; but the further, and as I conceive, the more valuable, suggestions of Kölliker, respecting the physiological action of the two portions of these bodies being distinct, and which we are disposed to think may in future

tend much to explain the reason how this pigment is deposited, and its connection to the supra renal capsules. Now if this should prove to be the reason why this discoloration exists, and in gestation also, may it not explain the reason why the nervous system is affected when albumen is discovered in the urine, and that instead, as some have believed, and which I have not yet been disposed to be fully convinced of, that, instead of urea being the cause of the convulsions, it may be possible that the medullary part of the supra renal capsule is involved.

My object in publishing the cases which have so recently come under my notice, of the disease of the supra renal capsule, is to aid in the dissemination of facts that bear so evidently on the early stage of the disease, by the sunburnt appearance of the skin, and which has been so faithfully and correctly depicted by Dr. Addison, as I think, in the advanced stages, and to whom the profession are so much indebted for the very valuable monograph he has presented them on the subject, and in which he asks for all the facts that may have a tendency to corroborate his views, or that may tend to contradict them. It was not my intention to have occupied so much time and space, but if there is but one fact which has advanced the elucidation of the subject, my object will have been obtained. The subject requires close and patient investigation, aided by morbid anatomy, through microscopic investigation and physiological induction.

ART. II.—*Kiesteine, and the Urine of Pregnancy.* By GEO. T. ELLIOT,* Jr., M.D., Physician to Bellevue Hospital, N. Y.

THE admitted difficulty of diagnosing many cases of pregnancy has led to the examination of the urine in the hope that some one of its conditions might prove a reliable test.

These researches date back to the fathers of medicine; and Avicenna is reported to have noticed a cotton cloud-like deposit in the recent urine of pregnant women; and by his

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43 West 32nd Street, Aug. 7th.

* MY DEAR DOCTOR:—The accompanying paper contains the results of a series of observations on the urine of pregnancy, made by Dr. Henry Van Arsdale and myself, while Resident Physician of the Lying-in Asylum. Should you find them worthy of a place in your Journal, they are entirely at your service. Yours, faithfully,

GEO. T. ELLIOT, JR.

DR. STEPHEN SMITH.

descriptions of "ascending granules," has been understood to refer to the formation of a pellicle.

The belief, though vague, became general, and allusions thereto can be found floating down the stream of popular literature. Thus in *Boccacio's Decameron*, a poor simpleton hoaxed into the belief of his illness, is persuaded by his jesting friends to send some of his urine to a physician in the plot, who decides from its examination that the man is pregnant.

But beyond this, I am not aware that the subject was made a particular study, before the year 1831, when Nauche, of Paris, submitted to the profession his views of a peculiar gelatino-albuminous ingredient, or product, found only in the urine of pregnancy, and separated by rest alone which has received the name of Kiesteine, or Kijestine, ,derived from *κησις εως* (product of pregnancy).

He is thus entitled to the credit of calling attention to a subject which needed elucidation, and which was entirely obscure. The number of observers since that time, has been small, but important statements have been made, and now that our knowledge of the kidneys and their secretions is so advanced, the question will probably be settled ere long.

Nauche remarked that when the urine passed by a pregnant woman, was placed in a glass vessel and allowed to stand, a cotton-like cloudy deposit first appeared; when later on specks, or oblong points, gradually increasing in number, became agglomerated on the surface of the liquid, and appeared on the sides of the vessel. Thus the surface soon became covered with a firm tenacious pellicle, which he considered to be peculiar to pregnancy, and an evidence of that state; and believed to be distinguishable from pellicles formed on the surface of urine in other conditions of health and disease.

Eguisier followed with a paper based on the examination of twenty-five cases, and concluded that it was an invariable accompaniment of pregnancy, and distinguishable from other pellicles formed on the surface of urine. He explained the presence of this peculiar ingredient as resulting from the absorption of the amniotic liquid, and remarked that when it had disappeared, the urine from the same woman gave this appearance no longer.

Golding Bird felt that the subject promised fairly enough to demand his attention, and he published in 1840 views on

the subject, which, in 1851, he saw no cause to modify. He procured, in all, the urine of 30 pregnant women, which he examined in the manner recommended by his predecessors. The women were from the third to the last month of pregnancy, and in 27 cases "copious fat-like pellicles were obtained after a few days' exposure." The three women who did not furnish the pellicle were suffering from inflammatory fever, and in one it appeared when the fever had left. By examining the urine of one patient he pronounced her pregnant in spite of her positive denial, and his opinion proved to be correct. Under the microscope, Bird found the pellicles to display numberless crystals of the triple phosphate, with beds of granular matter and tolerably regular globular bodies. He believes the fatty appearance of the pellicle to be due to the presence of these crystals, though he recognizes some fatty matter. He does not allude to the presence of vibriones.

Dr. Bird lays great stress on the evolution of a strong cheesy odor from the pellicle, or from the entire urine after its formation, and concludes, that if the urine of a pregnant woman affords a pellicle, after a few days' exposure, resembling the fatty scum of cooled mutton broth, accompanied by a cheese-like odor, its presence will afford a strong corroborative test of pregnancy, but not an entirely reliable one; because, as he says, "we have, as yet, no right to assume, however probable it may be, that a caseous pellicle can appear only when pregnancy exists."

Dr. Elisha Kane has published an admirable paper on this subject, which will always be identified with the history of kiesteine.

He examined the urine of eighty-five pregnant woman, and ninety-four during lactation, a total of one hundred and seventy-nine cases, presented in a tabular form.

He considers that, although not unerring, it is among the most certain tests in the early period of pregnancy, and states, with confidence, his ability to give a pretty accurate opinion on the occurrence of pregnancy by the sole examination of the urine. From the specimens of the urine of pregnancy, sixty-eight presented a well-marked pellicle; and from those of lactation, thirty-two gave the characteristics of kiesteine.

Dr. Kane, nevertheless, holds pretty closely to the views of Golding Bird, that this product is probably the result of the secretion of the mammary glands, conveyed from the

system by the kidneys; and states that the occurrence of the pellicle, when the lacteal secretion is uninterrupted by fever, weaning, abscess, or other causes, is rare. Out of forty-eight such cases, but five presented the pellicle. He did not find the cheesy odor in the proportions stated by Bird; and believes some of the granular matters found under the microscope to be identical with colostrum, a view which has not received support. He examined the urine of sixteen unimpregnated females without being led into error. He admits the formation of a pellicle in phthisis, vesical catarrh, uterine tumors, and metastatic abscesses, which might deceive the unpracticed, but would not deceive him. His paper is well arranged, and bears marks of talent, industry, and enthusiasm.

Dr. Letheby examined the urine of fifty pregnant women, obtaining kiesteine in forty-eight, and did not find it in the urine of seventeen non-pregnant. He found it in ten suckling women, decreasing as lactation advanced. He believes that the pellicle is not to be confounded with others, and compares the odor to putrefying beef.

Becquerel examined the urine of three pregnant women, and nineteen recently delivered, and found nothing peculiar to pregnancy, and attributed the changes noticed by others to modifications undergone by the mucus.

But filtration has not been found to alter the appearances of the urine, which are, moreover, similar in the cases where it has been drawn off with the catheter. Still, according to the statistics of Dr. Kane, Becquerel should have found some of the characteristics of kiesteine in about seven of his cases. Dr. Stark, of Edinburgh, examined more than sixty specimens of the urine of pregnancy, and propounded, as the result of his labors, that, there exists a proximate principle, or substance, *sui generis*, forming a connecting link between the gelatinous and albuminous principles, which he proposes to designate by the term "gravidine." He considers that this substance is presented under the microscope, in the form of globules, of a whitish hue; perfectly circular and transparent; and reflecting an opalescent hue when light was thrown on their sides, or transmitted. He considers that the coloring matter resides in their external envelopes; and that the pellicle so often alluded to results from the decomposition of these globules. They were present in all of his specimens—and he states that by due attention to them and to the formation of the pellicle—that you can give an

opinion by the tenth week of pregnancy—provided that you can then hear the placental souffle, notice enlargement of the abdomen, and mark the changes in the areola.

He denies the importance of the cheesy odor in the urine, so strongly insisted upon by Bird.

One would suppose that if the discovery of Dr. Stark were of value, that it would be more reliable as a test.

Dr. Golding, in his elaborate essay on the Signs of Pregnancy, concludes that the kiesteine pellicle is the only certain test before the fifth month; that it is uninfluenced by age, temperament, or number of pregnancy—that it is never absent during all the period of pregnancy, though the same woman may sometimes furnish it, and sometimes not; and that it disappears during lactation.

Vanoni examined the urine of one hundred and forty women, and found the peculiar pellicle unfailing, save in the urine of one woman five months pregnant. When led to doubt the value of other signs, he would be guided by this test.

Dr. Veit instituted a series of experiments at the Lying-in Hospital of Halle—observing the changes in the urine of forty-eight pregnant women, four non-pregnant, and ten men.

He arrived at the conclusion that kiesteine was not a product of pregnancy, nor peculiar to that state, and attaches no value to it as a test.

He speaks of the myriads of vibriones which, with the triple phosphates, he considers to constitute the pellicle; and alludes to the greater degree of alkalinity in the urine of pregnancy.

Zimmermann considers kiesteine to result from the formation of these vibriones in the lower strata of the liquid, which rising to the top, unite with triple phosphates, amorphous phosphates of lime, and urates of ammonia, to form the pellicle, thus ignoring the existence of any ingredient peculiar or confined to the pregnant state.

Regnault considers the nitrogenized matters found in all urine to be vastly in excess in the urine of pregnancy, denying that it contains any new principle. He attributes the pellicle to the vibriones and triple phosphates. The change is effected principally by the action of oxygen.

Indeed, experiments are not wanting to show the effect of atmospheric air on the development of these vibriones, notwithstanding the fact of their having been voided in some cases of extreme vitiation of the constitution.

Simon found the pellicle to consist of amorphous matter with opaque specks, vibriones in movement, and triple phosphates; while monads appeared at a later date.

Such being a fair *résumé* of the literature of the subject, it is evident that the question is far from settled, and without any other desire than to form opinions for our guidance, we determined to examine the appearances for ourselves,—and believing that many of those who had preceded us had relied on too small a number of cases, we desired to test a great number of specimens, and made tabular records of over one hundred and fifty-three, having examined over one hundred and sixty. In order that we should be less exposed to the chances of deception or error, we obtained most of the urine from women who applied at my office for a ticket, which would enable them to be attended in their labor by the district physicians of the Asylum—though we did not adopt this plan until we had satisfied ourselves that the appearances did not appear to be affected by the time of day when the urine was passed; in other words, that the "urina sanguinis" was not necessary to the experiment.

The urine thus obtained was exposed at the proper temperature in shallow, wide-mouthed glass vessels, holding an ounce or more, and covered with a label referring to the number of the case in the record. A portion of each specimen was tested with heat and nitric acid—with litmus paper—often with acetic acid, as well as boiled with liquor potassæ, contained in bottles freed from lead.

The daily changes were regularly noted until they could be almost foretold by us in many cases, and the microscope was brought to bear on every specimen many times.

We thought, and still think, that these observations should have been made more extensively on the urine of the earliest months of pregnancy, and on the urine of lower animals; but the drudgery of the task, and the result of our researches, have not stimulated us to continue farther.

It seemed to us desirable to notice whether the microscope could reveal any "globular" or other bodies peculiar to pregnancy, and to this part of the examination Dr. Van Arsdale gave the most faithful and unwearied attention.

Now, while the urine collected and thus exposed, furnished us with pellicles after various intervals of time, yet did these pellicles differ greatly from each other in appearance and modes of formation. While one-sixteenth of the whole number failed to present a pellicle, still their characteristics are readily referable to certain types.

To begin with the changes which were the most satisfactory as coinciding with those on which the value of kiesteine as a test for pregnancy reposes.

First day.—Cloud-like deposit, like very thin blue milk dropped in the urine; or, like some fuzzy cotton carefully scraped.

Second day.—Shining specks in the urine, and commencing film on the surface.

Third day.—Film forming well, cheesy odor.

Fourth day.—Film very distinct, tenacious, about a line in thickness, concave on its upper surface, "glistening like spermaceti," lighter in color than the rest of the urine, which has, however, assumed an opaline hue. The white specks which preceded the formation of the pellicle, are very distinct, and adherent to the sides of the glass. Brilliant crystaline specks on the surface. Cheesy odor very distinct.

Seventh day.—This state of things has continued, and the pellicle is now beginning to break up. It commences to crack and separate, showing a darker color through its interstices.

The microscope displays now, as it has done some days since, myriads of vibriones and monads, disporting themselves in a dark amorphous mass studded with opaque points, and having imbedded within it, very numerous and well-formed crystals of the triple phosphate, but no globular bodies whatsoever, either in the sediment, pellicle, or intermediate strata.

Now could such appearances be found in the urine of pregnancy, and the urine of pregnancy alone, the need of the profession would be supplied; but the proportion of such classical specimens was small, and the cheesy odor rarely present, even in specimens equally well marked.

We have seen a pellicle resembling the foregoing description in every single particular (saving the cheesy odor,) form on the urine of a healthy woman, suckling a child four months old, and which required all the milk that the well-supplied breasts of its mother could furnish.

A female servant in the asylum had been troubled with dysmenorrhœa. She would be faint, hysterical, very troublesome to deal with, and alarming herself, and all the women around her, when her turns came on. I examined the uterus at one menstrual period, drew off her urine with the catheter, and exposed it as usual.

Hers passed through the changes described, and presented

a well marked, thick, tenacious, fatty scum on the surface, studded with cream-colored spots, differing in no respect from numbers of our best marked specimens. The microscope displayed the appearances described above. I know that this woman had not been pregnant for two years, and she remained under my close observation, for many months subsequently, and therefore these appearances occurred in the urine of pregnancy, in the urine of uninterrupted lactation, and in the urine of an unimpregnated female at a period of time amply remote from a previous pregnancy.

Neither of these last two specimens gave the cheesy odor, but we soon learned that it was too infrequent to serve as a test of the urine of pregnancy.

In three specimens from pregnant women presenting the same appearances, and undergoing similar changes, we might find the cheesy odor in one, the odor of putrescent beef in a second, and an unspeakable odor in the third.

A very common variety of pellicle, and one that we acquired the habit of foretelling with great certainty, is apt to form on the urine of anæmic, anxious-looking women. It is generally of a pale color, and contains a larger admixture of vaginal mucus. The changes occurring in this kind of urine are very much as follows: the specimen becomes rapidly opaline in color, without the preceding whitish specks, twenty-four hours being, for the most part, more than sufficient for the transformation; and by that period of time the surface has assumed a glazed appearance from the presence of a film, which, as it does not differ in color from the urine, might escape observation, unless a probe or sharp-pointed instrument were passed through it; when an even, regular, and slightly tenacious film would be detected. This would remain for variable periods, sometimes for more than a week, becoming thicker and better formed, and giving the best examples of the pellicle resembling the fatty scum of cooled mutton broth.

Now, in this kind of urine we were able to foretel the appearance of vibriones and monads at an earlier period of time than in any other, they being visible before the crystals of the triple phosphate.

In some of these specimens, while the change in color just referred to, and the microscopical appearances were the same, the pellicle would resemble a thin layer of collodion, adhering tightly to the centre, and sinking with the evaporation of the liquid.

We have not observed the monads to appear at a later period than the vibriones, as a general rule.

Again, some specimens of urine would give the cotton-like, cloudy deposit for the first day, and by the expiration of that time, the surface would be studded with brilliant crystals of the triple phosphate, as though diamond dust had been sprinkled there.

This urine was generally alkaline from the beginning, and when we had recognized this appearance we no longer anticipated the opaline change in color, nor any of the pellicles that have been described.

These points would increase in number, become agglomerated, and form a pellicle, indeed; but one dry, irregular, and pointed, which broke up, and fell to the bottom as the others did.

Another pellicle frequently met with, was one forming rapidly, dry and dark-looking, and rugous as though it had been blown with the breath and suddenly crisped. Under the microscope, vibriones and monads would first appear.

A gentleman visiting my office, one day, passed some water at my instance, which was exposed under the same conditions as the others. To our amusement, a pellicle, precisely resembling the last described, formed and lasted some time.

This variety, however, while presenting the cotton-like deposit, does not present the opaque spots and bright oblong points seen in others.

Other specimens obtained from pregnant women would present a dense, turbid deposit. The urine would deepen in color, and, after the usual time, from two to five days, an unadherent, clotted, dirty-looking pellicle would cover about two-thirds of the surface, presenting, as usual, the vibriones, monads and triple phosphates.

Indeed, so far as the appearances of the pellicles went, we found no type distinctive of the urine of pregnancy; for while the urine of women, whom we knew to be pregnant, furnished us with entirely different pellicles, under exposure to the same conditions of atmospheric temperature and light, we found even among our limited number of specimens from the urine of unimpregnated females, and men, that pellicles would form similar to those on the urine of pregnant women.

With regard to the microscopic appearances, we can say, that so uniform were the appearances of vibriones, monads, and triple phosphates, that we soon ceased to allude to them, otherwise, than by their initials.

While the great proportions of our specimens were acid, we yet rarely met with crystals of uric acid. Urates of ammonia were not infrequent on the first day of exposure, and we have some cases recorded as presenting the urates of soda, and the oxalates of lime were often seen.

We had hoped that Stark's views might bear the test of examination, and that it might be possible to observe with the microscope some appearance which should serve as a test for pregnancy.

Nearly one hundred and sixty specimens of the urine of pregnant women have been thus examined, without the disclosure of anything peculiar to the urine of pregnancy.

Torulæ were not unfrequently met with, and generally, without the stems, present in diabetic urine, and this led to our examination of the urine for sugar, which was done by boiling a portion with liquor potassæ, kept in bottles freed from lead.

If this test should be considered at all reliable, the proportion of such cases was found to be large.

While engaged in these examinations, a specimen of urine was brought by a student of medicine, Mr. Bedell, for examination. It was from a patient of his suspected of pregnancy.

When I saw it (in the evening), it had already stood some days, and a thin, even, light-colored pellicle had formed—lighter in color than the subjacent urine, and commencing to crack. The urine was not albuminous, and the microscope disclosed numerous small globular bodies, perfectly circular; regular in size; whitish in color; transparent in the centre, and opalescent on the edges; floating in the pellicle; sediment and intermediate strata; acetic, hydro-chloric, sulphuric and nitric acids did not affect them, nor were they changed by succussions with ammonia, ether, and chloroform.

In a word, they answered so fairly to the description by Stark of his "globular bodies," that we suspected the woman of being pregnant by all the laws of "Gravidine." This patient remained under the care of Mr. Bedell, who knows that she was not pregnant during all the time that she continued under his observation. And as this was the only specimen that presented appearances resembling the globules described by Dr. Stark, we have not been able to confirm his observations.

One of our specimens of urine from men presented appear-

ances answering pretty closely to Dr. Stark's description, but by the seventh day they had commenced to germinate.

In short, the result of our labors but enables us to say, that we have seen nothing conclusive as to recognizable peculiarities in the urine of pregnancy. We think that there is nothing positive in its indications, and that its appearances can scarcely even be called "corroborative."

We reached this conclusion slowly, yet without regret; for we had no preconceived views to further, and only desired to marshal an array of facts which might speak to us for themselves.

It may be interesting to add that one hundred and twelve specimens were tested with heat and nitric acid, in perfectly clean test tubes, for albumen, and but *two* presented that ingredient. They were both primiparæ, and had their feet and eye-lids a little puffy, but without any symptom leading them to apply for advice. They were both kept on the use of gentle saline cathartics. In one the albumen disappeared before confinement. The urine of the other was not again examined, but both had natural labors.

ART. III.—*On the Constitutional Effects of Anæsthetic Agents.* By J. HENRY CLARK, M.D., of Newark, N. J.

NEW remedies, like new systems of medicine, are usually inaugurated with extravagant promises. Zealous advocates adopt and publish the most flattering encomiums upon the last Eureka, which, unlike its predecessors, is quite certain never to sink below the high elevation upon which they have placed it. Little observation is necessary to note how speedily the experience of practical men determine the real position of all these newly discovered dogmas and remedies. Many remedies most highly praised never find a permanent place in the estimation of the practitioner, and very many so-called systems which are ushered in with great eclat, which secure much popular favor, and find many advocates, leave scarce a single contribution to the treasury of science, or add the smallest stone to that temple which we are ever striving to rear. A volume could be composed of new discoveries, each of which, in their day, furnished subjects for the journals, medical and secular, the very names of which have long since dropped from memory and record. It is scarcely necessary to refer to stramonium that was to cure all epilepsies, the remedy for hydrophobia; the styptic, that

was to control all hæmorrhages; the digitalis, that was to control the heart; and the ergot, which was certain to relieve most of the difficulties of the lying-in chamber. These and a host of others have taken useful places in the list of appliances, by means of which the physician may often control disease, usually fulfilling one or two, instead of many, medications. In the same manner many of the "isms," "pathy," and "specialties," after making fortunes for quacks, have their day with the public, (who forget all about them, their attention being devoted to a new one just rising,) and at length become sifted, and the truth, often the merest kernel, is added to the list of tested and reliable facts.

One of the latest discoveries that has challenged investigation, that has furnished the subject of many a newspaper paragraph, and many a chapter for our medical journals, is that of CHLOROFORM. It was introduced as one of the discoveries that would immortalize its originators. They have been rewarded with high honors and Government appropriations. The new discovery has furnished an illustration of progress and development for the orator and the author, who have regarded it as the panacea for physical suffering, even that which was entailed upon our race, in the curse pronounced upon its maternal progenitor. It was resorted to freely if a tooth was to be extracted, or a toe-nail removed. Surgeons were recommended to use it in even trifling operations, and it is now declared in high places to afford a safe and desirable means of relieving the pains of parturition. As might have been expected, an agent so potent as, by a breath, to rob the patient of his senses, sometimes was found to produce the most mischievous effects. Patients died under its use. The partisans of the new remedy told us that the "cases were not well selected;" that "the article was impure;" that, if properly employed, it was entirely safe. With regard to the selection of the cases, these writers said little, but commonly referred to their own experience, if they had chanced to be successful.

It seems to have become established that there is no rule in relation to the condition of the patient, or the purity of the article, by means of which it can be employed with any degree of security. It seems to be fast settling down into the place of affording valuable assistance in emergencies, and during the performance of capital operations. That it is a very valuable remedy, as a soporific, when diffused in the

atmosphere about the patient who suffers from dyspnœa, from asthma, or any other cause, when locally applied, or when occasionally administered by the stomach, the author has almost daily evidence. That it is safe in its immediate effects, or salutary in its after influence, when introduced into the lungs in such quantities as to produce insensibility, he does not believe. In view of the casualties that are frequently reported (less frequently as the article is becoming less used), few physicians would be willing to breathe these agents themselves, in order to experiment upon their effects. The author has observed it produce the most strange hallucinations, which continued to occupy the mind and make upon it the impression of reality, long after sanity and health was restored. He has found no difficulty in believing in the possibility of the entire innocence of Beale, the imprisoned dentist, in Philadelphia; having seen cases of hallucination in his practice, far more remarkable and improbable.

Enough has been written of its *immediate* effects. It was noteworthy that, at the meeting of dentists held, not very long since, in this city, most declared their unwillingness to use it frequently; many of them furnished cases illustrative of the peculiar, strange, and fatal symptoms which sometimes followed its administration; but nowhere have I observed anything in relation to the *permanent influence* upon the constitution produced by the inhalation of anæsthetic agents, several cases having fallen under my observation, which has induced me to regard the whole danger as not entirely passed when the inhalation has been effected without exhibiting any phenomena indicating danger.

Case 1.—Mr. J. M., a gentleman, about 30 years of age, of good constitution, who ordinarily enjoyed good health, took *ether*, to facilitate the extraction of a tooth. He is of a nervous temperament, light complexion, blue eyes, and light hair. The administration of the agent produced no unusual effect, except that a "choking feeling" was experienced just before the occurrence of complete insensibility. After recovery from the immediate effect, for several weeks, extreme nausea and constant pain in the head was experienced.

After the lapse of three or four months, Mr. M. applied to me for advice, complaining of the following train of symptoms, the commencement of which he dated from the day that he inhaled the ether. He is an intelligent man, and has no doubt that they are wholly attributable to the inhalation, and that they commenced at that time. These symptoms,

he says, he never before experienced. Is very "bilious" (to use his own language); tongue much coated; constant pain in the head, especially over the eyes; a "feeling as if there was a *want of mental exercise*;" habitual costiveness; pain in the right side and back; indigestion, want of muscular strength; nervous system greatly deranged; neuralgic pains; and great despondency of mind.

Change of habits, mineral tonics and alteratives, restored him to perfect health after a few months. All these symptoms at length disappeared.

Case 2.—Mr. C. M. inhaled *chloroform* for the purpose of having a tooth extracted in Nov., 1854. In the afternoon of Jan. 5, 1855, I was called hastily, found him in a state of dreadful nervous excitement. He had just recovered from a period of insensibility; his extremities were cool; pupils of the eyes natural; some heat about the head and neck; convulsive twitchings in the face; and trembling with nervous agitation and mental excitation.

When the urgent symptoms were relieved, I learned that he recovered from the immediate effects of the inhalation without any unusual symptom; that it was followed by a very unpleasant feeling in the top of the head, such as he had never experienced before; that this symptom and neuralgic pains had been constantly experienced from the day that he took the chloroform.

In the morning of January 6th, while lying reading on the sofa, he was seized with a singular sensation of bewilderment and other feelings that he finds no language to describe. These sensations greatly alarmed him. Recovering himself, he went to his father's warehouse, while there engaged, an hour or two afterwards, he again experienced those singular sensations, but found himself unable to *articulate distinctly*. His father perceiving that he was ill, observing convulsive twitching in his face, with palor and anxiety, and perceiving in his conduct a desire to go home, took his arm and walked with him to his residence, about half a mile distant. I was soon after summoned, and found him in the condition heretofore described.

I prescribed stimulants, antispasmodics, and alteratives. He did not leave his room for a week, during which he suffered from extreme restlessness, anxiety, and vertigo. His pulse continued, during the week, depressed. I treated him with tonics and antispasmodics and mild mercurial alteratives with evident advantage; but his neuralgic symptoms

yielded slowly. His liver was constantly torpid; lassitude, indecision, and depression of spirits were indicated in his conduct.

I advised a voyage to Europe. He sailed in May, and remained till September. He returned very much benefited, but had the same furred tongue that was evident in the case previously referred to, with more or less habitual costiveness. These symptoms have yielded to the use of mild alteratives, and he seems now, after the lapse of fifteen months since its inhalation, to have recovered again his wonted strength and vigor.

In the case last alluded to, it required about eighteen months to rally from the influence of the etheral inhalation. In the case to which I shall next refer, over two years was required to outlive the same train of symptoms, mostly neuralgic, which commenced from the day of the inhalation.

Case 3.—Mrs. W., about 25 years of age, dark complexion, dark eyes, dark hair, of sanguine temperament, none of the nervous. She had usually enjoyed good health, although not robust. She received *chloroform* at the hands of a dentist also. I was called a year afterwards to prescribe for a set of symptoms very much like those described in the cases before narrated; neuralgia and "strange feelings about the head," were the prominent symptoms described, with a general feeling of "malaise." I found, as in the other cases, a determined conviction that all these symptoms were new, and that they commenced with the inhalation. I treated her as I did the others, depending mainly upon *iron*; the appearance of the countenance indicated the want of a larger supply of iron in the blood. She gradually regained her usual health. It required a full year, however, to accomplish the cure. The writer believes that the experience of others, if it could be accumulated, would prove that:—

1. Chloroform is most dangerous when employed in cases of trifling importance, both in relation to its immediate effects and final results. This is proved by the greater frequency of cases in which unpleasant results are observed, which follow the extraction of teeth or its use in trifling operations, where there is not pain enough to resist its excessive effects.

2. That persons whose nervous systems are particularly susceptible are most liable to suffer from the inhalation of these agents.

3. That the use of chloroform in the lying-in chamber is not devoid of danger.

A very limited inquiry into the experience of others has been made with the following results. An eminent practitioner in answer to my inquiry, says: "I have given it in four cases of accouchment. One of my patients had puerperal mania, and another congestion of the brain, both within six days afterwards. It is possible that chloroform was not the cause in either case, but I have never ventured to use it since." A lady of eminence in New Jersey, took chloroform in labor, became comatose, immediately recovered, with *permanently impaired* intellect.

In the experience of a neighboring practitioner, a perfectly healthly girl aged 18, sanguine temperament—catamenia regular, applied to a dentist to have a tooth extracted under the influence of chloroform. It was done very carefully by a prudent man. A very few inspirations sufficed to produce insensibility. The tooth was extracted, but sensibility did not return for several days—a serious congestion of the brain followed, continuing for several weeks, and though several years have elapsed she continues in a partially demented condition, subject to periods of excitement somewhat like those which she exhibited during the original attack.

A physician of New York City relates a case of a young woman aged 28, in good health, who after the extraction of a tooth, was immediately seized with the most distressing symptoms. Every muscle in the body commenced jerking and twitching. These phenomena continued for four days, despite the means adopted for her relief. They ceased at length under the use of strychnine. I am not informed with regard to the influence upon the mind.

The same gentleman related the case of a young girl, in a good family, (without date, age, name or any facts lest the matter might become public and grieve the friends,) who became crazed immediately after taking chloroform to facilitate the extraction of a tooth—*years have passed, and she is still a maniac.*

Another case has come to my knowledge of a child fourteen years old, who took chloroform when about to undergo a trifling operation; she became deranged; *six years have passed, and she has in nowise recovered.*

Morris County, N. J., furnishes a case, that I am not at liberty to report, in which permanent idiocy resulted from the inhalation of chloroform.

That these agents should be used with great caution, is further proved from their influence upon certain susceptible

constitutions, when not taken for the purpose of producing insensibility, but when merely exposed to an atmosphere charged with the fumes of ether or chloroform. On this point I have several illustrations, but one will suffice.

Mr. ——, a highly respectable dentist of ——, of nervous habit, light complexion, active motion, suffered from all the symptoms which were observable in the cases which I reported in my own experience in the early part of this article, simply from breathing the fumes of these anæsthetic agents as they permeated the apartments in which he operated and resided. He was accustomed to use these agents in his practice, almost hourly; his house was perpetually filled with the odor. He became, at length, feeble, pulseless, anemic—"felt as if he had been drinking champaigne"—suffered from neuralgia, and very great nervous debility. Abandonment of business, a residence in the country for three years and constant out-door exercise, and the use of electricity, accomplished a cure at the *end of that period.* He has no doubt but his illness resulted from this cause, and that his recovery is due to its removal, and the remedies employed.

My honored and beloved preceptor, the late James C. Bliss, M.D., related a case to me, last Spring, in which amaurosis followed by idiocy, resulted from the use of chloroform or ether in parturition. They succeeded the inhalation so promptly that it is evidently proper thus to trace cause and effect. I understood that all who saw her, both in and out of the profession, attributed the amaurosis and the subsequent derangement to the inhalation of one of these agents; I did not understand which.

Several other cases have come to my notice, in which the inhalation of anæsthetics seemed to produce similar constitutional effects. They were not my own patients, and I could not get access to well-authenticated facts in relation to them.

These facts have made upon my own mind the impression that these agents should be regarded as remedies of great potency, and not always certain to produce none but salutary effects; that they should not, if possible, be administered to persons, subject to local determination, or where their antecedents offer reason to apprehend derangement; that their use should be avoided in persons of extremely nervous temperament, or for any cause of nervous susceptibility.

We have the authority of eminent men in Europe, and in

this country, whose experience in the use of these agents has been very extensive, in favor of their usefulness and safety. Still these gentlemen have committed themselves in favor of what may be regarded as their hobby, without being chargeable with any want of respect, and the experience of others does not justify fully their opinions with regard to their entire safety.

If cases of dying do *sometimes* occur in the lying-in chamber, and on the operating-tables—if debility, hepatic congestion, neuralgia, apoplexy, and mania, do *sometimes* follow their use—it would appear proper that he who would deserve a reputation for wisdom and discretion should be quite certain that the severity of the case demands a *somewhat hazardous* remedy. Chloroform furnishes most valuable assistance in the operations of surgery, and the lying-in chamber. With no disposition to undervalue it, and far less to treat lightly the valuable statistical evidence furnished by Professor Channing, of Boston, and Professor Simpson, of Edinburgh, of its comparative safety, when carefully employed, I cannot believe that its employment to relieve the pangs of *ordinary confinement*, or to allay the pain of a trifling operation, is wise or expedient. If, in my comparatively limited experience, three cases should come under my observation within about two years, others, situated more advantageously, could r e many such cases, if looked for. To record the result of my observations, and to prompt abler observers to look in the same direction, is the whole of my present purpose.

While writing the concluding pages of this article, I have been called to administer chloric ether in a case of amputation of the adventitious toe of each foot, from a young gentleman of vigorous health. Although the operation was not very protracted, and the ether was administered by a discreet medical assistant, derangement followed; nor were my anxieties entirely relieved with regard to these effects before the lapse of six or eight hours.

If the facts which I have collated are sustained by those of larger experience—if there are constitutional effects, as well as immediate, to be guarded against, more regard should be given to the habits of the patient, and these agents should surely be reserved for grave and trying emergencies.

That permanent ill effects should be produced by agents that cause insensibility or derangement, is to be expected by analogy, and by previous experience with regard to other agents which produced like phenomena. I have not access

to the facts in the case, but, if I mistake not, the same kind of effects, both immediate and constitutional, were experienced in the case of Professor Fisk by passing a current of electricity through the diaphragm. If the reader has access to the facts he will find it a case in point.

In an early volume of the *Amer. Jour. of Science and Arts* is an account of the constitutional effect of the inhalation of the "Nitrous Oxide Gas." The subject of the experiment, immediately after taking the exhilarating gas, began to laugh immoderately, and laughed incessantly for years afterwards. It is furthermore related, if I remember correctly, that recovery never took place.

It is likely that we shall never discover a perfectly safe and harmless way of parting company with our senses, with the expectation that, after the object is accomplished, be it but the advance of science, or the relief of pain, we can be quite certain that reason and intellect, will promptly return.

ART. IV.—*Practical Remarks on Concussion of the Nerves.* By W. PARKER, M.D., Professor of Surgery in the College of Physicians and Surgeons, New York.

CONCUSSION of the great nervous centres, as the brain and spinal cord, has long been a well-recognized surgical accident. The symptoms which follow these injuries have been carefully noted, and are not unfamiliar to the general practitioner, but the pathological changes which they induce, are not so well understood. By some writers, it is maintained that some actual lesion of the nervous substance may always be observed in concussion, while others, and the majority, believe there is no appreciable lesion.

The division which Dupuytren made of these injuries, depending upon the change produced in the nervous matter, is at once simple and rational. To those accidents which result in no lesion of the nervous centre, but consist of a simple shock, or shaking together, he gave the name *commotion*, but when there was actual lesion, he called it *contusion*. Commotion of the brain or spinal cord, as thus understood, consists in no sensible lesion of the nerve matter. Dupuytren explained it as a sudden depression of the nervous power; Cooper as a sudden suppression of the circulation in the organ which the effort to vomit often relieves by restoring the blood to the brain. The more prevalent opinion is

that there is a disarrangement of the nervous particles which interrupts the function of the organ; this explanation is of course conjectural.

Whatever the pathological changes induced in the great nervous centres in simple concussion, the results of this accident are often of the most serious nature. The danger of the immediate inflammatory reaction, often requires our most assiduous attention to avert. And even when this critical period has passed, and our patient resumes his ordinary pursuits in apparent health, we still regard him as liable to remote and secondary effects of the injury which may terminate in the most serious organic changes in the nervous centres. Thus, patients who have suffered concussion of the brain, and recovered quickly from its immediate effects, have some time after begun to manifest symptoms of cerebral disturbance, which in the lapse of years has finally terminated in the most grave organic changes of this great nervous centre. These remote results of concussion consist of induration of the brain-structure, thickening of its membranes, and inflammatory effusions. The functions of the nervous centres become thereby impaired, and the organs which derive their nervous supply from these sources lose their vigor.

In many respects, analagous to concussion of the nervous centres is, what I shall term, concussion of the nerves. A number of cases have come under my observation, which I cannot otherwise explain, than on the supposition that the nerve receives a shock, and the function is for the time suspended, whether from actual lesion of its tissue, or a disarrangement of its molecular structure I cannot decide, but in a manner similar to injuries of the great nervous centres. The progress and termination of these cases is peculiar, and tends strongly to confirm this view of their nature. The one striking and important feature of all, is, intolerance of over exertion. Moderate exercise seems beneficial, but when the limb is pressed into active service, it has seldom failed to become speedily and decidedly worse. There seems from this circumstance, to be a loss of the nervous power of the limb, or an impairment of the integrity of the nerves supplying it. The consequence of this condition is, that the limb emaciates, the muscles are more or less atrophied, and the limb becomes permanently incapable of its former usefulness.

The following cases will give a clear idea of the symptoms, progress, and results of this accident.

Case 1.—*Severe Concussion of the Leg by being thrown from a Carriage—Gradual loss of power with emaciation—Aggravation of symptoms on exertion—Improvement following rest, passive exercise, and friction.*—Mr. T., of Honesdale, Pa., came under observation, in Dec., 1849, suffering from injuries which he had received in the month of July preceding, from being thrown from a carriage. The accident occurred while attempting to curb his horse which had taken fright, and was running at the top of his speed. He was thrown clear from the vehicle and alighted on the road upon his feet, but most heavily upon the right foot, and then fell upon his left side. The only external evidences of injury were contusions on the external part of the *left* leg, and the left wrist and arm; these bruises were trifling, and soon recovered from. His first impression was that the bones of the leg were broken, but on examination this proved not to be the case. On attempting to walk, the *right* leg was found paralyzed, and soon after it became so painful in the neighborhood of the knee joint, as to cause faintness. The motion of a wagon produced the same extreme suffering which subsided on resuming a quiet, horizontal position, and has never returned. After applying a tight bandage to the limb, he rode home, a distance of thirteen miles. On the second day the muscles, below the knee were considerably swollen and so sensitive to the touch, that bathing with the softest towel or sponge, produced a sharp thrilling sensation. The surface assumed a yellow appearance, and resembled the discoloration of an ordinary bruise, from the knee to the ball of the great toe.

He was attended by Dr. S., an intelligent physician of that place, who judiciously advised rest and fomentations of wormwood, etc. The inflammation gradually subsided, and in the course of a week or more he was able to move about upon crutches, but without recovering the use of his limb. Blisters applied to the calf of the leg proved at first beneficial, but soon lost their effect. He resorted to a variety of stimulating liniments, and finally to the warm, and cold, douche, and from the latter derived more benefit than from any other application. Warm water had a debilitating effect. He continued the cold bath and frictions until it became difficult to bring about reaction, when it was discontinued. He was now able to bear some weight upon the limb, and was directed to use it as much as possible; these efforts, however, had a decidedly injurious effect, and he soon lost the power of extending the leg, and even moving the parts below the

knee. Without any assignable cause he again acquired the power of extending and raising the leg, and was able to walk about the house with the aid of a cane. There was this peculiarity still existing that any pressure exercised upon the leg, as the edge of the seat or even his staff lying across the thigh, gave the sensation of deep-seated pain. He was therefore always obliged to sit with the leg in a horizontal position. He again attempted to force his leg into use, by walking more and without the aid of a crutch, but the result was still more unfavorable than the first trial, as he not only lost the power of extending the limb, but has never recovered it. Electricity was now used for several weeks, but with no advantage.

It was at this period, Dec., 1849, that he came to this city to obtain further medical advice. He consulted several surgeons, who gave various opinions as to the nature of his disease, and recommended the trial of other remedies, as issues, blisters, etc. He consulted me among the number. The limb was then atrophied, cool from languid circulation, and morbidly sensitive. In other respects, there was nothing worthy of note. On his return home blisters were applied to parts of the leg but without benefit; cold and warm shower baths were used with equally unsuccessful results. During the Summer of 1850, he employed a strong decoction of oak bark, with brandy and camphor, with the effect to reduce the enlargement still existing above the knee. The leg seemed to the patient to become colder after use than before, at other times it seemed warmer, though its temperature was not increased. In Sept., 1850, he again called upon me. There was no marked change in the appearance of the limb, or in the patient's general condition. On returning home he bandaged the limb with adhesive plaster, and continued this treatment two or three months, avoiding all fatiguing exercise, but without benefit.

During the Summer of 1851, he consulted several surgeons of Boston, who coincided in the opinion that the tendon of the quadriceps extensor had been severed. At the suggestion of one of them, a splint was fitted to the posterior part of the leg, so as to fix the limb in an extended position. By this means he was able to move the limb with greater ease than previously, but it did not enable him to walk as was anticipated. The limb has gradually emaciated, and in August, 1852, the thigh was about five inches smaller in circumference than the right, and other portions were corre-

spondingly wasted. I have seen him occasionally since, but there has been no permanent improvement in his condition. He has spent some time at a Water Cure Establishment, where his general health was improved, and there was some amendment of the affected limb. He attends to his business, but is careful not to become fatigued in body or mind.

Case 2.—*Injury of the foot from wearing a tightly-fitting boot—Recovery on going to Europe and giving the part rest—Return of the disease on attempting a pedestrian tour—Partial recovery after repose—Relapse on striking the foot against a stone stair—Permanent lameness with atrophy of the limb.*—T. S., Esq., æt. about 40, of general good health, has suffered for a long period from an obscure affection of the nerves of the foot and leg, consequent upon an injury received while quite a young man. It occurred from wearing a very tight boot, which kept up continued and severe pressure over the instep. This pressure was continued until inflammation was set up in the integuments. After recovery from this attack, the foot and ankle remained weak, unable to endure much exercise, and intolerant of the pressure of a boot. It was also the seat of considerable pain and a sense of weariness after exercise, but when allowed to rest it always improved very markedly. The only treatment resorted to was the application of a blister, which gave no relief.

Three years after, he visited Europe to complete his studies, and while at sea the foot seemed to entirely recover; he no longer suffered the peculiar weariness formerly experienced, and the pressure of a boot could be borne. On arriving at Paris, he began to wear a boot again, and walk and dance as freely as ever. He arranged a pedestrian tour of Europe, and at Lyons purchased a heavy pair of boots, which not fitting exactly, induced a return of his former sufferings. He soon recovered upon removing the cause, and taking rest.

The following winter was spent at Washington, where he again resumed tight boots and his gay habits. Another relapse occurred, and the symptoms were more severe than before; the pain now extended to the leg, thigh, and hip, and even to the shoulder, hand, and fingers. He consulted many physicians and surgeons, and resorted to a great variety of treatment, without benefit. All local applications, as well as general treatment of a stimulating or depressing nature, made him worse; but whatever improved his general health had a favorable influence upon his disease. Riding in the country in an open carriage proved decidedly beneficial.

Not improving to his satisfaction, in the following Spring he went to Europe to obtain further medical advice. He consulted Sir Astley Cooper and Brodie, but obtained no satisfactory opinion of the nature of his disease. Mr. Cooper advised emplast. ammoniaci cum hydrargyro, which he applied on returning home. At the same time he walked but little, and again began to improve. The affected leg, thigh and nates had become cooler, somewhat atrophied, and exceedingly sensitive to changes of the weather. He could always walk with the least discomfort after a night's repose. If he walked one step too far, the pain returned, and continued to increase in severity until he again obtained rest. Being a gentleman of great intellectual activity, and fully occupied in the practice of law, if he over-taxed the brain, the pain would recur in the limb, and extend over the whole right side of the body.

He continued in this condition until 1841, when he again walked too far, and the old complaint returned with renewed severity. He now consulted a surgeon in Boston, who advised rest, dry frictions, and the occasional application of leeches. Rest and frictions were very beneficial, but the leeches always proved injurious. He improved rapidly under the former treatment, and gained a better state of health than he had enjoyed since his first attack. For the following eight years he continued quite comfortable, always avoiding over-exertion of both body and mind.

In 1849, while running up the door-steps, he unfortunately struck the top of the foot against the stone stair, and the whole difficulty again returned in an aggravated form. At this period he came under my own observation. The affected limb was now decidedly cooler than the other; the circulation feeble, and it was very sensitive to changes of the weather. I directed perfect rest, and, as a local application, tr. iodine. After this a blister was applied. In the meantime an abscess formed on the face, which was very painful and greatly prostrated his system. He, however, convalesced slowly, and in the Spring of 1850, again visited Europe. He there regained his general health, and his limb improved correspondingly. So sensitive is this leg to changes, that the air of different localities affected it differently. In Naples, for example, he was very comfortable, while at Rome he suffered from prostration.

The leg, at the present time, is far from being sound and healthy. It is, as formerly, intolerant of severe exertion,

and probably never will recover a more healthy condition than at present.

Case 3.—*Injury to the foot from the fall of a flat iron—Weakness of the limb and lameness resulting—Improvement after repose and aggravation of symptoms on taking exercise—Permanent lameness with emaciation of limb.*—Miss T., aged 26, of Westfield, Conn., of vigorous health, and sound constitution, received an injury to the right foot from the fall of a flat iron in June, 1848. For several days the foot was very painful, but it gradually recovered by rest, so that she was able to walk without inconvenience. Soon after, she left home on a visit, and at first could walk some distance without difficulty, but on taking a long walk, up and down hill, the old pain returned, centering chiefly, however, in the hip. The pain in the hip was located just behind the great trochanter, in the course of the ischiatic nerve. She was confined to the house, and walked but little around the room until September, when she was able to walk with considerable freedom. Still, she derived so much benefit by rest, that she did not venture to walk any distance until November. From this date she remained quite free from trouble, until the following October, when the pain returned for a day or two, after taking a long walk.

She again remained free from pain until August, 1851, when she was attacked with cholera, and on recovering, experienced a return of her former pain. It subsided after two or three weeks, and she continued in good health until June 19, 1855, when she fell down several stairs, spraining the right ankle, and receiving a shock to her whole system. Her hip again became the seat of pain, from which she has never recovered. For two weeks she kept about the house with difficulty by using a cane, and went up stairs two or three times a day. She was then compelled to keep her room, and for the most part her bed, for the space of three weeks. After this she was rolled out in her chair to her meals, and occasionally rode out several miles. These excursions would sometimes be productive of relief to the pain in the limb, but more often she received no benefit. The position of the foot productive of the greatest relief was elevated, and she consequently seldom allowed it to rest upon the floor.

About the first of September following the injury she took to bed, sitting up only to take her meals, write, etc. She found by experience, however, that even this amount of exertion

made her limb worse, and from November 7th, to the 22nd of January, 1855, when last under observation, she constantly maintained a reclining posture.

During the month of August, after keeping her bed about a fortnight, she had improved so much that she determined to attempt the use of her limb again. She was, however, made immediately worse, and did not soon recover her former comfortable state. She writes, "Anything that fatigues me, occasions a return of the old feeling; sometimes it seems like a pressure, or wearied state of the nerves; the word *ache*, better expresses the feeling, than *pain*. Some days reading, writing, and sewing, do not apparently injure me; again, the affected limb quickly warns me to lay them aside. Reading fatigues me the most."

The pain in the hip is usually of a dull, aching character, that in the foot sharp and lancinating. For a few days after the fall in June, there was considerable tenderness in the course of the ischiatic nerve, and occasionally the pain has been succeeded by a soreness. For a long time there was throbbing in the hip, like "pulsations of the heart after running," as the patient describes it. There were spasms of the muscles of the limb, and a feeling as if the nerves were put upon the stretch. She also experienced a burning sensation in the foot, which was perceptibly warmer at one time than another. She had occasional intervals of pain, eight days being the longest period.

Her general health continued excellent, appetite good, and she grew fleshy. The local application which seemed most beneficial, was dry friction and bathing with spirits, and this was always agreable, and greatly relieved the pain.

Case 4.—*Blow on the Knee resulting in Lameness, and Emaciation of Leg.*—In the year 1845, I was consulted by Mr. G., of Connecticut, for weakness of one leg, the consequence of a blow upon the knee. In alighting from a carriage, he struck his knee so violently as nearly to induce faintness. He recovered from the shock after resting some time. Subsequently, he over exerted the limb, and soon after began to experience a dull pain in the whole leg and through the body.

When he consulted me he walked with crutches, and the leg and thigh were emaciated, cool, and livid. The least exertion of the leg gave rise to dull pains and prostration of the general system. He could scarcely use the muscles of this limb, so much were they enfeebled by disease, and the

loss of nervous power. If his mind was too much occupied, the pain recurred in the leg.

He had consulted many physicians and surgeons, and employed a great variety of remedies, but without deriving material benefit. I directed my treatment, as in the preceding cases, to the restoration of the impaired nerves, with similar results. Rest, and dry friction, proved by far the most efficient restoratives. I heard from him two or three years since, and learned that he had so far recovered as to be able to attend to his duties as a country merchant.

Case 5.—*Lameness and Atrophy of Leg from the Kick of a Horse upon the Thigh.*—In June, 1855, I was consulted by Mr. A., of Indiana, a man aged 45. He was a farmer by occupation, and had received a kick from a horse upon the external aspect of the middle part of the right thigh. The early history of this case was very similar to those already related. The leg and thigh, when examined, were much cooler than natural, and in an atrophied condition. He was able to exercise moderately, but when the limb was pressed into active service, it became the seat of dull, aching pains, and led to general prostration.

He had been under the care of several physicians, and had resorted to almost every variety of treatment, both rational and empirical, but had received little or no benefit. For the last few months he had been using water, and from this treatment received more advantage than from any other remedy. His general health became established, and a corresponding improvement of his leg followed. He was, at the time of consulting me, using the wet towel.

This case was evidently one of the class which are the subject of this paper, in which the nerves of the limb are impaired by a shock, or concussion. I advised him to continue the use of water, to employ dry friction, take passive exercise in the open air, but never use the limb up to the point of bringing on the *dull, tired pain*, of which he complained so much. I urged upon him the necessity of strict adherence to the latter direction, as I regard a failure to attend rigidly to this advice, fatal to all hopes of recovery.

I have not learned the result of this case.

Case 6.—*Paralysis of Iris, caused by an Injury to the Supra Orbital Nerve; Loss of Vision.*—M. Y., aged 13, an exceedingly promising lad, while playing with his schoolfellows, received a blow upon the forehead, from a small stone thrown by one of his mates. The particular point of injury was the

supra orbital branch of the fifth pair of nerves. The first symptoms were those of slight concussion, but the pupil became at once dilated, the iris was immovable, and the vision lost.

Several oculists were consulted before he was placed under my care. On investigating the case, considering the nature of the injury, and the condition of the eye immediately subsequent to the blow, I concluded that it was of the class of those already described in this paper, viz., a severe concussion of the supra orbital branch of the fifth pair, with permanent impairment of its function.

My treatment consisted in perfect rest of the eye, frictions to the forehead, and the application of the tincture of iodine, with careful attention to his general health. He continued his studies by having a second person read to him, and the moderate use of the uninjured eye. He gradually improved, the eye became nearly natural, the pupil moved sluggishly, but vision was never restored. He finally returned to his studies, and after continuing them two years, he sailed for Europe. He has recently returned in good health, the eye being still deprived of vision.

In reviewing the foregoing cases, the following conclusions may be deduced in regard to the diagnosis, prognosis, and treatment of concussion of the nerves.

Diagnosis.—It is of the utmost importance for the successful issue of this affection of the nerves, that the nature of the accident be early understood. The first effect of concussion of the nerves, as of the brain, is a sudden suspension of function. The part is temporarily paralyzed; reaction soon comes on, with a gradual restoration of power. This may result in an inflammatory attack, and the early treatment should be directed to its prevention. When this period has passed, although the nerves of the part seem to have recovered their functions, they are really enfeebled and incapable of their former exertion. If the organ which they supply is subjected to severe exercise, it becomes the seat of a dull, "aching, or tired pain," the sure evidence of exhaustion. The latter, is one of the most constant symptoms of this affection of the nerves, and deserves especial attention. It will be observed that the injured limb is intolerant of severe exertion, and when exercise is carried beyond a given limit, nervous exhaustion follows, and nothing but rest, often long continued, will restore its previous comfortable condition.

Prognosis.—The prognosis in concussion of the nerves

depends much upon the early treatment pursued. If the nature of the injury is properly recognized, and the means employed for the gradual restoration of the healthy tone of the concussed nerves be judiciously selected, entire recovery may be confidently anticipated. The history of the foregoing cases, especially numbers 2 and 3, would lead us to infer that after apparent recovery, the nerves remain irritable, and liable, on the occurrence of an exciting cause, to a relapse. If, however, the condition of the nerves is not understood, and active, exhausting measures are resorted to, the prognosis is decidedly unfavorable. Aggravation of the symptoms promptly occurs, partial paralysis, and a gradual wasting of the limb follows, and its usefulness is permanently impaired. The weak and irritable condition of the nerves of a part extends to the nervous centres, causing a general nervous irritability, and this, in turn, aggravates the local affection. In no instance has the disease resulted fatally to life.

Treatment.—The proper treatment of concussion of the great nervous centres, has long been well understood; rest, until the equilibrium of the circulation is restored, and such lesion as may exist is repaired, is the most positive and essential element in the treatment. It is in fact the *sine qua non*. If the concussed brain, or spinal nervous centre, is prematurely exerted, a morbid process is set up which insiduously, but surely, leads to a loss of its integrity. Of other means, which are but adjuvants to *rest* in the treatment of these cases, it is not necessary here to speak.

The proper treatment of concussion of the nerves, immediately after the accident, I regard as one of the utmost consequences for future success. Perfect recovery depends entirely upon the plan thus early pursued. As in concussion of the brain, so in concussion of the nerves, *rest* is an element of treatment, without which, all other remedies will positively fail. A perusal of the foregoing cases will confirm this assertion. I am the more anxious to impress this fact upon the practitioner, because, without exception, active remedies were early employed in these cases, and the limb was forced into too active exercise, and always to its positive injury. This course has been pursued from a wrong understanding of the nature of the injury inflicted upon the nerves. It has been supposed that the function of the nerve was simply suspended, that its power was dormant, and it only required stimulation to restore its healthy action. For this purpose electricity has been used in addition to powerful local appli-

cations and exercise, but always with positive injury. Local depletion has been practiced, under the impression that the pain was due to local inflammation, and the result has been no less unsatisfactory.

On the contrary, I regard the affection as one of pure nervous debility, the nerves being enfeebled by the shock. To employ stimulants under such circumstances would be to goad an already exhausted beast, or urge to exertion a patient prostrated by disease in the hopes of thereby increasing strength. The condition of the nerves of the limb is similar to that of the retina in the disease known as asthenopia, viz., one of true exhaustion.

By rest, in the treatment of concussion of the nerves, I do not mean an absolute state of quiet, but a certain degree of rest, alternating with such an amount of *passive exercise as never causes the return of the "dull, tired pain,"* of which patients invariably complain, when the nerves approach the state of exhaustion. Passive exercise, as riding in an easy carriage, or on the water, not carried beyond this limit, proves decidedly beneficial, and should be encouraged.

Next to this degree of rest, or limited exercise, dry frictions of the limb have given the most relief. Friction may be made with the hand or a coarse cloth, and should be continued according to the feelings of the patient. The application of a wet towel has seemed to afford some relief, and may be resorted to; hydropathic treatment has not, however, afforded any other results than improvement of the general health.

The condition of the general system should be carefully attended to, for on its integrity depends the tone of the nervous system. This fact is illustrated in case 3, where an attack of cholera severely aggravated the existing affection of the nerves of the leg. While all fatiguing exercise of the body, within the limits specified, should be scrupulously avoided, it is not less important that the mind not be overtasked by exertion or anxiety. In Case 2, the patient, a lawyer, could never apply himself to business without an aggravation of his symptoms, attended with general prostration; and, in Case 3, reading and writing proved equally injurious, exciting dull pain in the limb.

In conclusion, the following propositions may be stated:

The first effect of concussion of the nerves is temporary paralysis, more or less complete, of the limb; the second effect, is an enfeebled condition of the nerves leading to

deficient innervation, emaciation of the limb, and permanent paralysis.

The proper treatment is rest, alternating with passive exercise, dry friction, and improvement of the general health.

ART. V. — *Case of Scorbutic Opthalmia; with Remarks.* By FREDERICK D. LENTE, M.D., Surgeon to West Point Foundry, N.Y.

J. M., aged 50, a laborer in the West Point Foundry, of full plethoric habit, and intemperate, applied to me June 15, 1856. Some twenty-three years ago, this patient had an attack of inflammation of the right eye, which resulted in an extensive ulcer of the cornea, at its central part, the cicatrix of which has always interfered, to a considerable extent, with vision. On several occasions subsequently, this eye has been the seat of inflammation more or less severe, which ordinary remedies were sufficient to relieve, and which does not appear to have had any specific character. The eye has now again been attacked with very severe inflammation, which has existed for several days, and which involves the conjunctiva both of the palpebræ and eyeballs, and also the cornea, which presents a large irregular, excavated ulcer, occupying the seat of the old cicatrix, and extending beyond it, and abundantly supplied with red vessels. The conjunctiva is intensely red, thickened, and slightly granular; the cornea is opaque at its central part, and hazy at its outer part, though the iris can be indistinctly seen through it, presenting apparently no abnormal appearance; pupil natural. There is a profuse lachrymal secretion, which is hot and irritating to the integument of the cheek. The eyeball is affected with severe, deep-seated pain, which also extends over the whole right side of the head, but not beyond the median line. The scalp is also sore on this side, and tender on pressure, especially at particular points, which are the seat of slight elevations like nodes. There are also elevations of a similar character on both ulnæ, which are also quite painful; patient attributes these last to heavy lifting; his pains are not particularly severe at night. Patient has no special constitutional disturbance, except that he is feeble, and has a poor appetite. The tongue is somewhat furred, and the gums are spongy and red, an appearance not uncommon among persons in the lower walks of life, and intemperate in their habits.

Prescribed leeches to the right temple, and pills of calomel and opium, also belladonna ointment with opium, to be rubbed around the orbit night and morning.

June 26.—The leeches have been re-applied since last date, and the pills have been continued until a few days ago. There is no material alleviation of the symptoms, and patient suffers constant pain in the head and in the elevations on the ulnæ. The gums are much more red and spongy, but there is no mercurial fetor. ℞ opiate collyrium, and to take—℞ potass. iodid. gr. v. three times a day.

July 10.—The medicine has been regularly taken since last note, and for a few days past, in ten grain doses. During the past week it has also been conjoined with the tincture of cinchona, as the vital power is somewhat below par. The elevations above alluded to have entirely disappeared, and the tenderness of the scalp is much less, but the headache remains, and there is very slight, if any, improvement in the appearance of the eye. The condition of the gums remains the same. The idea of a scorbutic origin of the inflammation to-day suggested itself, and, upon inquiry, it was found that, six or seven years ago, patient had a similar attack, with the exception of the opthalmia; the symptoms then yielded to anti-scorbutic remedies. Therefore, directed to discontinue the iodide, and to take the aromatic sulphuric acid, twenty drops, three times a day, and lemonade freely, also vegetables, especially salad, beets, potatoes, etc.; patient also states that for months past he has eaten almost no vegetables, and but little meat, but principally bread and milk.

July 20.—Condition of patient much improved both constitutionally and locally; the pain in the head and eye has almost entirely subsided, and the inflammation of the cornea and conjunctiva has very much diminished. To discontinue the mineral acid, and continue the vegetable acid, and diet as before.

August 1.—Patient continues to improve rapidly; the inflammation has almost disappeared, and vision is improving.

August 16.—There has now been no inflammation about the eye for some days past, all the red vessels have disappeared from the cornea, which is clearing up. Patient's general appearance has much improved.

Remarks.—From the character of the symptoms above detailed, and from the successful result of the specific treatment employed, we deem ourselves justified in applying the

term *scorbutic* to the peculiar form of inflammation with which the eye was affected, though we are not aware that a similar case has been recorded by any of the systematic writers on the diseases of this organ. The case is interesting as demonstrating the fact, that a violent and destructive inflammation of the eye may be excited by that peculiar condition of the system induced by *scurvy*, and only amenable to anti-scorbutic remedies,—and also that genuine scurvy may arise as well on land as at sea; a fact, however, which has long been recognized, and alluded to by different writers. Still, such cases are far from being common. That an exclusive diet of *salt* provisions is not a necessary element in the production of scurvy is well established, though not universally admitted. Here is a case, where the patient had fresh milk and good bread as a constant article of diet, and yet was attacked with scurvy. A continued infraction of the law which indicates the necessity of a varied and mixed diet for man will eventually generate scurvy, or, at least, the scorbutic diathesis; the experiments formerly made in prisons, and other similar establishments, of a continuous bread diet, or meat diet, or vegetable diet, prove this. No doubt, many of the chronic ailments with which individuals of the laboring class, and in very restricted circumstances, are so commonly afflicted, and which often so obstinately resist apparently appropriate remedies, are due to this diathesis, brought on by improper food, or scarceness of diet, or a want of some necessary element in their food, in connection, frequently, with damp and ill-ventilated sleeping apartments. And yet the scorbutic symptoms are seldom so characteristic as to point to the specific treatment, and the cases consequently are never perfectly cured.

A case of well marked scurvy came under my treatment here about eighteen months ago, which may not inappropriately be alluded to in this connection. It was developed under the following circumstances:—The patient, a man over sixty years of age, of good constitution, but somewhat addicted to intemperance, became partially insane, and insisted on living apart from his family, in an underground basement, where he cooked his own food, and supplied himself with whatever he ate and drank. What the nature of his food was it is impossible to say, but that it was generally unsuitable, often in bad condition, and imperfectly cooked is very probable. I was summoned to attend him for what were considered rheumatic pains, which affected his whole

body more or less, but principally his legs, which were somewhat swollen and œdematous; it was with great difficulty that he could walk. These pains did not affect the joints especially, nor were the latter at all swollen. The tongue was slightly furred; the gums spongy, tender, and purplish; and many of the teeth quite moveable in their sockets. As his general health was feeble, quinine was prescribed in free doses, also potass. iodid. and good diet. After a few days, during which the above treatment was continued, all the symptoms had increased in severity; the limbs were more swollen, and large purplish ecchymoses had made their appearance; the gums also more spongy, and many of the teeth apparently almost ready to fall out. Under these circumstances, the quinine and iodide were discontinued, and an anti-scorbutic course substituted. Within a few days, improvement was manifest. In the course of a fortnight, the condition of the gums was decidedly better; the teeth had become firmer; the ecchymotic discoloration had mostly disappeared, and the pains much relieved. It was, however, three or four months before the patient entirely recovered from the effects of his attack.

ART. VI.—*A Case of Rupture of the Uterus, with a rare deformity of the Pelvis.* By N. C. HUSTED, M.D., of New York.

Mrs. F., æt. 33, an Irishwoman. Healthy, to all appearances, previous and during her pregnancy. She is the mother of six children, and has had difficulty in some of her accouchments. The labor previous to the present was, however, so rapid, that the child was born before the physician arrived. She was taken in labor April 19th, and on the 20th I was called, she having had an excellent midwife engaged, and with her. I found the pains very moderate,—with intervals of about fifteen minutes. I proceeded to make a vaginal examination, and found the os well dilated; the waters had been discharged some five or six hours. The cord had presented itself with the occiput.

I concluded to return home as the pains were not yet sufficiently strong to require my constant attendance. I returned from time to time, but there was no progress. At seven o'clock in the evening of the 20th, after having the bowels and bladder evacuated, the pains began to be more expulsive. I then concluded to remain with her until she had completed her labor. Upon examining the pelvis care-

fully, I detected, as I thought, something very unusual, and which seemed to be a bone, or spicula of bone, projecting downward into the vaginal passage. This appeared to be quite sharp. I also found the os coccygis very rigid and very much curved upwards. The pains had been very severe for more than an hour and a-half. She then asked to lie upon the floor; we consented, and immediately made a bed for her. She had been there about fifteen minutes when she complained of having cramps in her stomach, followed by vomiting, and a collapsed appearance. I at first thought this came from drinking some milk; but presently it occurred to me that there must be a rupture of the uterus.

After complaining of these cramps as she described them, the pains, though very severe just previously, and the labor progressing rapidly, at once ceased. The pulse sank and became small and fluttering, in spite of all the stimulants which were administered. She died in three hours from the time when the supposed rupture occurred.

Autopsy two hours after death. The body had the usual cadaveric appearances. I made a section along the linea alba, and proceeding with the examination, found a portion of the fœtus pushed through an opening of the uterus (made just above the neck) and lying among the intestines. This rent appeared to be about three inches in length. After removing the fœtus and the uterus, I proceeded to examine the pelvis. This I found in the condition in which I had diagnosed it. The bone projecting into the vagina, had its origin from the os pubis near the symphisis, and protruded downward and backward. This projecting bone had evidently made the rent in the walls of the uterus, just above the neck, and corresponding to the situation of the bone, under the symphysis pubis. I have recently come to the conclusion that there must have been an exostosis to produce this deformity. I can account for it in no other way.

In reviewing the numerous cases collected by my much esteemed friend, Dr. Trask, I find nothing similar to this. The principal deformity is narrowing or contracted pelvis, of which there are seventy-four cases recorded. There was sufficient capacity in the pelvis had not this projection of bone existed.

In a recent German author,* I find some four or five cases

* In Dr. Kilian's work, published in 1854, at Mannheim, I find cases of spondylolisthesis, *i. e.*, disarticulation of the sacrum; also cases of akanthopelys, or deformities of the pelvis, with a projecting point in some place of the pelvic arch, etc.

cited where there were projecting portions of bone in different places around the arch of the pelvis.

This deformity, the author says, was caused principally from riding on horseback. I do not think this explanation correct, at least it is not in my case, as she had probably never been on horseback. I can cite no cause for the deformity.

ART. VII.—*Abstracts of the Proceedings, Papers, Clinical Reports, etc., of Medical Societies and Hospitals of New York.*

NEW YORK PATHOLOGICAL SOCIETY.

REGULAR MEETING, Feb. 13th, 1856. Dr. ROBERT, WATTS, Jr., *President.*

(*Reported by* Dr. E. LEE JONES, *Sec.*)

Aneurism of the Internal Iliac.—Dr. VAN BUREN presented a specimen rather of surgical than pathological interest,—an *aneurismal sac* of the *internal iliac* artery, which was removed from a patient of St. Vincent's Hospital. At the time of admission his system was much reduced, and shattered by the use of opium and stimulants. On examination, an immense pulsating tumor was seen situated both above and below Poupart's ligament. Over its most prominent part was a black eschar, which looked as if it might burst at any moment. On consultation, it was concluded that an attempt to tie the artery should be made. A large incision was made; and, carefully pushing up the peritoneum, an artery was felt, apparently healthy in structure, and supposed to be the external iliac. A ligature was passed around it, with the effect of controlling the pulsation. The next day he was doing well; but, in three days, active inflammation of the tumor ensued, and he sank rapidly and died on the fifth day. *Post-mortem examination* disclosed the ligature around the primitive iliac, an inch above its bifurcation into external and internal; a well-formed clot existed in the internal iliac. No peritonitis. Extensive suppuration had occurred in and around the sac.

Large Ovarian Tumor—Operation—Death.—Dr. E. R. PEASLEE presented an *encysted ovarian tumor*, weighing forty-five pounds, removed from a lady aged 41, who first observed a tumor in the left iliac region between three and four years ago, which has gradually increased up to the present time (Feb. '56), with slight fluctuations in size. It had from the first been regarded as *ovarian*. The patient was first seen by Dr. P., in May, 1855; she wishing to obtain his opinion in regard to the propriety of an operation for its removal by the large abdominal section. On examination, he found the abdominal circumference to be forty-seven inches, the walls of the abdomen so tense that he could not decide whether the mass consisted of many or few distinct sacs. The general condition of the patient was so low, that he did not for a moment entertain the idea of an operation, and gave his opinion accordingly.

He did not again see her till the 25th of last month (Jan. '56) when he was again requested to remove the mass. To his surprise, her condition had much improved since May, 1855 (though she had failed during the past Summer,) and, though the tumor had risen somewhat higher in the epigastrium, her circumference was but forty-eight inches. Appetite pretty good, respiration somewhat hurried, though, when sitting or lying quiet, there was no dyspnœa. Bowels regular, action of kidneys rather free. He did not, however, *advise* the operation of ovariotomy; though to her inquiry whether she was apparently in as good a general condition as the two persons on whom he had operated successfully, he was obliged to reply in the affirmative, and moreover that it was impossible to ascertain whether the mass was adherent or not, without previously evacuating the sacs by tapping to such an extent as to admit a more exact examination, and that he could not express any opinion in favor of ovariotomy, without previously tapping her; and if in doing this, he found the mass extensively adherent, or could not decide it was *not* adherent, in that event, he would not entertain the idea of an operation. He did not advise the tapping even; since, though he regarded this operation as hardly dangerous in any degree, she was informed that the mass might be made up of very many small sacs, and without a single large one, and in that case she would be disappointed, and *he* should not arrive at any positive result as to the adhesion or non-adhesion of the tumor. The patient had a decided aversion to being tapped, unless she was assured that ovariotomy would follow, since a sister, who had been tapped a few years since, for the same disease, died a week after of peritonitis, and because she supposed, if once tapped, a repetition of the operation would be frequently necessary. After a deliberation of five days on the subject, the patient again sent for Dr. P., and informed him she had decided to be tapped, as preliminary to the decision of the question, whether he would perform ovariotomy or not. The operation was performed, in the usual way, on the 4th inst., assisted by Dr. Ranney, of Twenty-third Street. Her condition was good. Fluctuation indicated the existence of a distinct sac of considerable size, in and below the umbilical region, and another higher up. The former was at once reached by the trocar, and six pints of clear and highly gelatinous fluid (to the sense of touch) evacuated, and on partially withdrawing the canula, two pints more of a milky fluid were withdrawn, evidently from another sac, which had been traversed by the instrument, while on its way to the larger one. On changing the direction of the canula to penetrate another sac, a few drops of venous blood flowed through the instrument. This he thought proceeded from a minute vessel on the interior of the sac, which had been punctured, as he had seen the same thing before. Several smaller sacs were then punctured, and on withdrawing the canula as before, a few drops of venous blood again appeared. Fearing this might escape through the puncture in the sac into the cavity of the peritoneum, he waited until the dropping entirely ceased, and then withdrew the canula. With a curved trocar, other more distant sacs were evacuated. The mass now seemed to be composed of small cysts, and it seemed impossible to reduce the tumor much more.

Further attempt was therefore discontinued. More blood now flowed through the canula; he waited till all oozing ceased, before finally withdrawing the instrument. Fifteen pounds of fluid had been withdrawn. The patient was fatigued by the prolonged operation, and depressed in mind from the fact that the operation must fail to demonstrate the adherence or non-adherence of the tumor; but with the exception of some faintness and sickness of the stomach, nothing worthy of mention occurred. The tumor could be slightly moved below the umbilicus, but not at all at the upper part; the idea of the operation of ovariotomy was therefore abandoned. The next morning, before ten o'clock, he was requested to visit the patient in haste, as she seemed to be sinking; before he arrived, she was dead. She had passed a tolerably comfortable night, with sickness of the stomach at times, but presented no grave symptoms till eight o'clock, when her expression changed, and she became restless, and died before ten. *Post-mortem examination*, six and a half hours after death:—Some bloody serum had escaped from the puncture through the abdominal walls. On cutting through the latter on the median line, a thick and very vascular membrane was found intervening between the parietal peritoneum and the ovarian mass; and a layer of bloody serum was seen between this and the mass, one or two inches deep. This membrane was found to cover over the whole tumor anteriorly and laterally, like an apron, it being also adherent to the tumor on both sides, as well as to the pelvis and the lower portion of the tumor. On further examination, the membrane just described was found to be the omentum major; and hæmorrhage had proceeded from a small vein, which had been punctured in penetrating it to reach the first sac. It had become so thick and firm, as well as vascular, by constant pressure and the motions of the tumor, that he had mistaken it for the wall of the sac first punctured, and the blood, which, during the operation, he supposed had flowed from the inner wall of the sac, had really flowed from the membrane just mentioned, into the cavity formed by the adhesions before specified, between itself and the diseased mass. But little bloody serum had escaped into the cavity of the peritoneum; and it was judged that not more than eight or ten ounces had been lost in all. The tumor (which was shown) was found extensively adherent to its upper and lateral portion, not so much so below the umbilicus. Its removal would not have been attempted during life had it been exposed to view for that purpose, by any judicious surgeon. It was found to consist of an immense number of small sacs, as you perceive; and weighed forty-five pounds; making sixty pounds in all before the operation of paracentesis. It was chiefly developed from the left ovary; and both Fallopian tubes were closed up and distended with a putty-like substance, in which broken-up epithelial cells predominate.

It may be proper here to remark, that though a married lady for several years past, she had never been pregnant; menstruation had been regular till within the last one and a half years. Dr. P. observed that the hæmorrhage must be regarded as the "causa sine qua non" of death in this case. That is, had no hæmorrhage occurred, death might not have taken place in any immediate connection with the operation.

A quantity of blood between the omentum and the tumor, with a small amount also in the peritoneal cavity, must have in a few days led to a fatal result; but in accounting for a death occurring within sixteen and a half hours after the operation, and where the amount of blood lost was so small, we should doubtless also take into consideration the exhaustion from the operation, and especially the mental shock produced by the knowledge that the operation had led to no positive result in diagnosis, and that therefore nothing further would be done.

The *source* of the *hæmorrhage* was, as far he knew, *peculiar*. Branches of the internal epigastric artery have sometimes been wounded; the bladder has been wounded; the uterus, happening to lie in front of the tumor, has also been punctured; and one of the Fallopian tubes, also happening to be stretched over it in front, has been transfixed. But he he has never heard of the greater omentum being injured by a puncture, at a point usually regarded as the safest, half way between the pubis and the umbilicus. Indeed, in all ordinary circumstances, where the abdomen is largely distended, it is impossible that the omentum should extend to this point. For it is not long enough, naturally, to extend even to the umbilicus in a case like this, even though it originally fall into the pelvis; and, moreover, it is uniformly, as far as he is aware, pushed up by the tumor during its development from below, and is generally found somewhat folded, and not reaching more than half the distance from the stomach to the umbilicus. In this case, the omentum was not less than two and a half feet long, as the specimen will show, since it completely covered the tumor, anteriorly and laterally. And since, had it been free at its lower extremity at the time the tumor first began to grow, the latter would doubtless have merely lifted it up as is usual. Dr. P., inferred that the omentum had become adherent to some portion of the pelvic peritoneum before the tumor began to be developed. Thus the tumor grew upwards behind the omentum, which thus was expanded over the whole length of the tumor.

Finally, the whole extent of the omentum was equally vascular; and had the puncture been made at any other point, there is no reason for believing that the hæmorrhage would have been less than that which actually occurred.

Caries of Elbow-Joint—Exsection.—Dr. A. C. Post presented the extremities of the bone of the elbow-joint, removed by the operation of exsection, for caries, from a boy fourteen years old. The patient was progressing well, and he anticipated his having a serviceable limb. Dr. P. again exhibited the specimen of *eburnation* of the *femur*, shown to members two meetings since. He had macerated the bone, and it is observed that its inferior portion is in a carious condition; above that, there is necrosis of the shaft; and within the medullary cavity; is a sequestrum, which, though moveable, cannot be withdrawn, being retained by two small holes, each of them having a peg of bone, passing down to the sequestrum. The specimen was mainly interesting from the fact of its presenting anchylosis, caries, necrosis, and eburnation.

Valvular Disease, etc., etc.—Dr. O'Rorke exhibited a specimen of *valvular disease of the heart* and *dilatation of the ascending aorta, with constriction of that vessel*, and gave the following history of the case:

Caroline L., aged 36, born in England, came under observation in May, 1855. She complained of distressing pain in cardiac region, palpitation, and vertigo, with frequent attacks of syncope following agitation or excitement, especially that of the sexual organs. She had also chronic rheumatism in most of her joints; had acute rheumatism several years ago. She was accustomed to hard work, was very excitable, and was anemic, and very much emaciated; but never had œdema of the extremities. Her pulse was equal in both wrists, small, weak, and jerking or receding; there was a thrill communicated to both the carotids. She had increased dulness over the præcordial region, but the rest of the chest was resonant on percussion, except a small space on the right of the sternum, and between the third rib and the clavicle, where there was slight pulsation. The heart's action was attended with strong impulse. The apex struck the chest one inch and a quarter to the outside at the nipple, and between the sixth and seventh ribs. Rhythm was natural. Over the heart was heard a loud, systolic, bellows murmur, most distinct over the apex. Over the aortic valves was a double murmur, the systolic being loud, coarse, and passing up the aorta, and heard distinctly in the second intercostal space to the right of sternum. Also at the top of sternum it was quite audible; between the upper and middle third of the scapula on each side of the spine; and between the spine and the lower angle of the scapula; it was more distinct on the left side than on the right. There was a harsh, sharp murmur at the commencement of the diastole. The diagnosis was *hypertrophy of the heart*, accompanied by *mitral regurgitation*, with *aortic obstruction and regurgitation with aneurism of ascending aorta.* The treatment was tonic and sedative in its character, each new prescription being followed by marked relief. Still her paroxysms of pain, palpitation, and syncope would return at short intervals, she thinking that each one would end in death. She was out on business on Monday, February 11th, 1856, apparently as well as usual. On the morning of Wednesday, February 13th, she had an attack of pain, palpitation, etc., when she suddenly expired. *Post-mortem examination* was made eight hours after death, in the presence of Dr. Leaming (to whom I am indebted for the opportunity of doing so), Drs. Tucker and Clark.

On opening the chest, the lungs did not collapse. They filled the chest completely, and were healthy, except in being slightly emphysematous. There were no traces of old pleurisy. The pericardium contained from six to eight ounces of clear serum, and the right pleura twice that amount. The abdominal organs were healthy. There was also hypertrophy of the left ventricle of the heart, the walls being twelve lines thick. The ventricular cavity, however, was not dilated, and the right side was not at all increased in size. The mitral orifice was contracted to a little more than half its normal dimensions, being capable of admitting only the end of one finger; but it was quite smooth. The anterior mitral valve, or that between the mitral and aortic orifice, was thickened and somewhat shortened, though not at all roughened; the other seemed to be absent; being so much contracted that the chordæ tendinæ appeared attached to the tendinous

margin of the auriculo-ventricular opening. The aortic or semilunar valves were thickened, contracted, and adherent to each other at their sides, so as to stand out, forming a ring around the orifice, and of course obstructing the passage of the blood from the ventricle. Yet in their constriction they failed to meet in the centre, and admitted of considerable regurgitation. The circumference of the ascending aorta, one inch above the free margin of the semilunar valves, measured three inches and eight lines. Immediately outside the attachment of the remains of the ductus arteriosus, the descending aorta, instead of descending by a gradual curve or arch, as usual, descended abruptly, thereby forming an angle. At this point the under wall or coats of the artery became, as it were, folded inward or upward; forming a sulcus one and a half or two lines deep on the concave or lower wall, and of course, projecting into the vessel. Upon the projecting angle thus formed internally, the internal and middle coats were destroyed for about four lines transversely and about one line longitudinally, and the internal and middle coats dissected up for one and a half or two lines on the distal side of the fissure thus formed by the destruction of the coats of the vessel. At this point the circumference of the artery was only one inch and seven and a half lines, being *seven lines* less than it should have been when compared with the mean circumference of the healthy aorta; but when compared with its own ascending portion, it was one inch and three and a half lines less than it should have been to have carried out the same proportion. The ascending aorta was increased one inch in circumference beyond its natural dimensions, and when compared with the constricted portion just mentioned, was very nearly one inch and eight and a half lines more than it should have been. Here, then, existed dilatation of all the coats of the ascending aorta, and at the junction of the arch and the descending portion, a constriction, accompanied by destruction of the internal and middle coats of the aorta, giving rise to a condition which, had the patient lived longer, must necessarily have terminated in false or sacculated aneurism.

REGULAR MEETING, February 27, 1856.

Report of a case of Urinary Fistulæ.—Dr. SAMUEL C. POINTER presented the pelvic organs of a man exhibiting urinary fistulæ, resulting from injury, accompanied with the following history:—

Henry S., an Englishman, 35 years old, was admitted to Bellevue Hospital on the 12th of January, 1856. No hereditary predispositions could be traced on questioning this man, who had been very intemperate till ten months ago, when he has compelled to give up his old habits. Twelve years ago he had gonorrhœa, but had no stricture. No other history of venereal disease in any form. Two and a half years ago, at New Orleans, he fell astride the hatchway of a ship, wounding the scrotum and right testicle. He was insensible for six hours subsequent to the injury, and when his consciousness returned was unable to urinate, though there was great tenesmus. It was found impossible to pass a catheter, and he was left to pass a terrible night, during which he noticed a swelling beginning at the pubes and gradu-

ally traveling up to the anterior superior spinal process of the ilium and distinctly confined to the right side. The next day at 12 M. the infiltrated tissue was lanced in two places, one just above Poupart's ligament about one-third of the distance from the crest of the pubes to anterior superior spinous process of the ilium, and the other about half an inch below it vertically. After nine days he passed his water in a stream through the upper wound, only a few drops passing per urethram. At the end of two months he could walk about, the quantity of urine passed through the natural passage had increased daily, and at this time he passed about half through the fistula and half through the urethra. The wound in the scrotum had only partially healed. For six months this condition of things remained, the man having no pain except at the neck of the bladder when he urinated. He commenced work two months before, and continued his laborious occupation until three months previous to his admission. He has always noticed some pus in his urine and a very slight discharge from the fistula. Ten months ago he first noticed a dry cough and night-sweats, the beginning of phthisis, which has steadily progressed. About this time the urine ceased to pass through the artificial opening, and whilst at stool passed per rectum, excoriating the parts and giving a urinous smell to his stools. When standing up the opening into the rectum was closed in some manner, so that none of his water passed into it, but all through the urethra. After several months the fistula reopened and simultaneously there was an absence of urine in the fæces. About the first of September, 1855, it again ceased to pass through the former opening, and reappeared in the fæces, a little passing at each stool, up to the present time, and nothing being discharged from the fistula except a very small quantity of pus.

He came to the hospital to be treated for his chest disease, and with the hopes of recovery usual to phthisical patients. On physical examination every evidence of tuberculous cavities was found at the apices of both lungs; he was extremely emaciated and very feeble. Heart's sounds were natural.

Just above Poupart's ligament and about its middle was a round opening in the skin, which on examination was found to communicate with a fistula running downwards and inwards to the median line, apparently terminating in a blind pouch above the symphysis pubis; the probe was also passed in the opposite direction for a short distance and then stopped abruptly. There was another opening in the integument vertically below this which communicated with a fistula, ending at the anterior border of the tendon of the adductor longus muscle; besides these there were two others in the scrotum which could be probed a distance of one inch only.

January 15th, three days after admission, his urine again passed through the fistula, and he continued to pass at least half of it thus up to the time of his death, the other half passing through the urethra in a spiral stream at times thick with pus. He also passed a little urine through the rectum when at stool the whole time. I attempted to pass a bougie but could not introduce it further than the triangular ligament with the gentle force used. He informed me that many

attempts to pass instruments had been made in vain. His urinary disease had long ceased to give him any trouble, and his lungs being irremediably diseased no treatment was addressed to it beyond cleanliness. He was given cod-liver oil, and vegetable and mineral tonics, but gradually sank and died on the 16th of February.

On *post-mortem* examination a flexible catheter (No. 8) was passed into the upper fistula above Poupart's ligament, and internal to the external iliac artery downwards in front of the peritoneal covering of the bladder, gradually passing from the side of the organ to its posterior surface till it met with an obstacle in the region of the prostate gland. This fistula being opened with a scalpel was found to be lined with a membrane approaching mucous membrane in its character. On cutting down upon the end of the instrument the fistula was traced into an abscess seated partly in the substance of the prostate gland and between it and the rectum, containing about half an ounce of pus. From this abscess a communication was established with the bladder through the floor of the urethra. There was also a communication by a valvular opening with the rectum a short distance from the anus, just above the sphincter ani muscle. None of the other fistulæ communicated with the bladder. They were all lined with the same imperfect mucous membrane. The fistula communicating with the abscess in the prostate divided near the opening in the integument into three smaller ones which emptied into the sinus before described, and which was large enough to admit the little finger.

The bladder was considerably thickened and presented evidences of inflammation. Its whole mucous surface was dotted over with perfectly circular ulcers about three lines in diameter, some of which presented the appearance of healing, whilst others were ragged and apparently progressive. They resemble very much chancres, so that several medical gentlemen who examined them remarked that they would have pronounced them chancres unhesitatingly if situated on the external surface of the body.

Aneurism of the Aorta.—Dr. George T. Elliot presented a specimen of *aneurism* of the *aorta*, with the following history:—

John Kelly, aged 28, unmarried; native of Ireland; a shoemaker; admitted June 25th, 1855.

No hereditary tendencies to disease traceable. A man of intemperate habits. Suffered from syphilis in primary and secondary forms. Never had rheumatism. Lost the use of one eye and partly that of the other from inflammation contracted by exposure at a fire. Health generally good.

In March, 1855, exhibited symptoms of some inflammation about the chest; pain (but) on the right side; expectoration slight, yellowish, and viscid. Previous to this attack never suffered from palpitation of the heart, but since has been greatly troubled in this way, unable to walk any distance, or up stairs without stopping to rest. Has not felt pain in precordial region, is not conscious of having ever injured himself by exertion.

At his admission, June 25th, had lost much flesh, was greatly oppressed at times by palpitations, but felt no pain. Legs were œdema-

tous to the knee. Urine not albuminous. Pulse was then ninety; regular; visible in neck. Respiration, twenty-four. During August suffered somewhat from precordial pains.

October 1.—Apex of heart found in sixth interspace one and a half inches to the left of nipple. Double murmur at base, single at apex, or transmitted. Thrill over base. Radial pulsations visible. Entire of lower limbs œdematous, with some effusion into abdomen. Liver prominent in epigastric region. At this time suffered greatly from dyspnœa, and œdema of lungs was discovered.

During November and December occasional attacks of dyspnœa came on, with general derangement of digestive function. Food was often rejected by the stomach.

January 6.—Sudden excruciating pains in, precordial region during the past night caused him to rise from bed in his endeavors to obtain relief. Point of heart's beat indeterminate. Double murmur as before over base, and a distinct thrill in the third interspace two inches to left of median line. Dulness extends from second rib downwards, and from right margin of sternum to three inches to the left of the nipple. Fluctuation, but no very great distension of abdomen. Œdema of right lung. Bronchial breathing in left. Face assuming a dark purplish hue.

February 23.—Has been suffering with increasing dyspnœa for several days. Maintains a sitting posture in bed. Face greatly suffused. Jugular veins, and others of neck exceedingly distended.

February 24.—At 9 A.M. suddenly died, immediately after eating a light breakfast.

Sectio cadaveris twenty-four hours after death.—Rigor mortis. Face and neck much swollen and discolored. Considerable distension of abdomen and great œdema of legs.

Thorax.—Lungs everywhere firmly adherent to the pleura costalis, the pericardium and diaphragm, excepting as separated on left side by a slight amount of serum. Several ounces of serum were found confined between the middle and lower lobes of right lung, and the lower lobe was carnified. The left lung was compressed posteriorly by the enlarged pericardial sac, but otherwise healthy. The pericardium was found thickened and greatly enlarged, its cavity containing over twenty ounces of serum. The heart greatly hypertrophied; weight, twenty-two ounces. Its valves all healthy to inspection. The aortic, however, were found not to hold water. The liver was comparatively small, presenting marks of inflammation upon its surface. Kidneys of normal size and healthy. Brain not examined.

Fatty Tumor of the Neck.—Dr. DALTON presented a fatty tumor, as interesting in exhibiting how dense a tumor of that character may become by the incorporation of fibrous tissue. The tumor was removed by Dr. Detmold from the back of the neck of a perfectly healthy boy, aged nine years. It made its appearance ten months since, and gradually increased until it attained the size of a goose's egg. It was adherent to the transverse processes of two of the vertebræ, lobulated, presenting to the touch a sensation as if bone was developed in its

centre. It was mostly superficial, the skin being in nowise discolored. It was not painful, and was removed on account of its inconvenience.

Dr. Metcalf asked if it was not uncommon for tumors of that kind to be attached to bone. He thought there were but few if any who would not have considered the tumor to be scirrhus.

Chylous Urine.—Dr. METCALFE presented a specimen of *chylous urine.* A young lady, aged 26, native of Cuba, unmarried, of nervous temperament, having previously enjoyed good health, began to be dyspeptic three years ago. From time to time pain in the lumbar regions was complained of, and on several occasions she passed bloody urine. Two years ago, for a short time, she had been troubled with swelled feet. No disturbance of the menstrual function, except that the *catamenia* had come on three or four days later than the regular time, and sometimes at irregular intervals. Three months before coming under observation, she noticed that her urine became milky in color as it was passed. No diminution of the normal quantity was observed. It had a peculiar odor; an acid reaction; sp. gr. 1019. On standing, it deposited a copious sediment; the upper part being somewhat turbid. The sediment was composed of urate of ammonia, and of very unusual abundance of renal and vesical epithelium. Heat and nitric acid gave copious precipitate of albumen. Sulphuric ether agitated with the urine removes the fat, which collects in quite a thick layer between the two fluids. Chloroform affects it in a similar manner. On microscopic examination no tube casts are to be found.

From time to time small whitish clots pass with the urine from the bladder. These were found to consist of an amorphous stroma, entangling multitudes of oil globules and epithelial scales.

The patient was treated by tonics and generous diet, and in the course of two months was quite well of her troubles.

Dr. Metcalfe stated that he had been informed by Brown Séquard, that it was not uncommon in Cuba for persons to be affected as in this instance, and in other places within the tropics, especially young persons.

Case of Metro-peritonitis.—Dr. KRAKOWITZER presented the uterus and a portion of the large intestine from a patient who had died of peritonitis. The woman had passed through the allotted period of pregnancy, was attended by a midwife, and delivered in half an hour.

On the morning of the fourth day the patient sat up, and feeling very cold and chilly was obliged to go to bed again. Three or four hours later she felt very sick, and in four days died. The autopsy revealed copious effusion into the cavity of the peritoneum, and also the fact that inflammation of the bowels had existed to a certain extent. A short distance above the ilio-cæcal junction a bridle or false ligament existed on the anterior side of the cæcum, drawing about three inches of the tube into the space of about three-quarters of an inch, thus forming a pouch posteriorly. The membrane of the stomach showed an irritated surface from the administration of calomel. There was no pus found in the veins of the uterus or ovaries. There were some slight but old adhesions of the Fallopian tube to one side of the

ovary. Eight years ago the patient suffered from intermittent fever, and the spleen was found somewhat hardened and adherent to its surroundings.

REGULAR MEETING, March 12, 1856.

Hydatids of Liver—Tubercles—Hæmoptysis—Sudden Death.—Dr. FINNELL next presented a specimen of *hydatids of liver*, tubercles of lungs, miliary tubercles on mucous membrane of trachea, followed by profuse hæmoptysis, sudden death.

John Fungsworth, aged 27 years, born in England, enjoyed good health until January, 1836, when he first complained of pain in the side, attended by cough. He continued to work daily, until the evening of Saturday, March 8, when copious hæmoptysis occurred in sufficient quantity to fill, in a few minutes, an ordinary wash-bowl. Dr. Stephen Smith being called, found him suffocating from blood in the air-passages. The respiration soon ceased, though the pulse could be felt at the radial artery for a short time after. The suddenness of his death led to the belief that an aneurism of the aorta had burst into the trachea.

The *autopsy*, thirty-six hours after death, disclosed the lungs filled with tubercles; the superior lobe of the right firmly adherent to the walls of the chest, consolidated, and containing several cavities. One of these was filled with blood. It is probable that from this the hæmorrhage had its origin. The left lung contained a less amount of tubercular matter, its lower portion being perfectly healthy. The trachea was intensely congested from the larynx to the bronchi, and contained beneath the mucous membrane miliary tubercles in abundance.

On examining the liver, a large acephalocyst, or hydatid, was discovered in the anterior border of the right lobe, close to the umbilical fissure; it measured two and a-half inches in diameter, and consisted of a thick fibrous sac, inclosing an albuminous membrane, very delicate in texture, and not adherent to the outer one. Both were separated from each other by an effusion from the inner wall of the fibrous sac, which appeared to be blood and bile mixed together. The echinococcus, usually met with in these cysts, was not discovered, although submitted to a careful microscopical examination.

Cirrhosis of Liver—Bright's Disease.—Dr. D. S. CONANT presented the *heart*, *liver*, and *kidneys*, removed from a patient aged thirty-one years, born in Rhode Island. About fourteen years since, he removed to Charleston, South Carolina. For twelve years he enjoyed good health, when he had an attack of yellow fever, and from that time has never been well. The skin has been yellow, and the general tone of the system very much depressed. He remained in this state until two months previous to death, when slight œdema of the lower extremities and of the eyelids occurred, followed by general anasarca shortly after. The skin of the lower extremities became enormously distended. The scrotum also increased to the size of his head, and the whole integument of the lower extremities became of a dark purple color. He also had considerable ascites, which led to the

supposition that the liver was the seat of the disease. He died on the 4th instant, apparently from exhaustion—his intellect being perfectly clear to the last.

Autopsy, four hours after death. The lower extremities had become somewhat reduced in size, and the scrotum entirely evacuated by acupuncture. The integument, generally, was of a dingy yellow color, much darker upon the lower extremities, with slight abrasions. The eyelids were not swollen; the pupils were equally dilated, without peculiarity.

The upper lobe of the left lung was found hepatized with some slight pleuritic adhesions. The right lung was found completely adherent to the costal parietes. In the pericardium were some six ounces of serum. The ascending aorta was partially lined with atheromatous deposit, and to a small extent affected the aortic valves. The liver was in a cirrhosed state throughout—the capsule of Glisson being in the early stage of contraction.

The kidneys were found much congested, and Bright's disease strongly suspected.

Tumors of Brain.—Dr. CONANT next exhibited three *small tumors*, for Dr. A. K. Gardner, taken from the *brain* of a female. [History of case not reported.]

Autopsy, six hours after death. Brain only examined. No marked external appearances. Pupils equally dilated. Upon removing the calvaria, a slight point of adhesion was discovered upon the right side under the parietal eminence, between the dura mater and skull, adhering to the dura mater beneath, and corresponding to the point was a small tumor, about half the size of a pea; and upon the optic chiasma was another of the same kind of tumor, half the size of the former, and attached to the sheath of the nerve. The hemispheres of the brain were apparently healthy; but, upon dissecting down to the ventricles, the corpus striatum of the right side appeared entirely flattened, and a slight sense of fluctuation was discovered. A little dissection discovered the entire corpus disorganized by an abscess. The left corpus striatum appeared healthy externally; the same disorganization was apparently commencing internally. The right optic thalamus contained the largest of the three tumors about the size of a peanut; the left optic thalamus contained the smallest of the three tumors about the size of a large pea; and the medium sized tumor was discovered in the pons Varolii, low down upon the right side.

Dr. BRONSON had made a microscopical examination of the tumors, which were composed of fat, and a great number of slightly caudate cells.

Orbital Tumor.—Dr. G. BUCK presented a *tumor* removed from the orbit of a child, five years old, of healthy constitution. It was first observed by the parents two months ago, situated on the upper lid, and movable. Of late it has rapidly increased, though from the first unattended with pain, nor was vision at all impaired. When first seen by Dr. Buck, the upper lid was distended and protruded so far as to conceal the eye; its surface was livid and of a purplish hue, and movable over the swelling, which was elastic in feeling, somewhat

resembling fluctuation. It was thought advisable to remove the tumor, which was accordingly done, after etherizing the patient, by dividing the lid perpendicularly throughout its whole extent above the brow. It was found loosely attached to its membranes, and no difficulty experienced in its removal, which was mainly accomplished by the handle of the knife. It seems fatty in consistence and appearance. He thought it remarkable from its locality and rapid growth.

Dr. CLARK had examined the tumor with the microscope, and found it to exhibit three distinct elements; the first and most abundant consisted of caudate corpuscles, the cells were elongated, and seemingly as if about to be formed into fibres, the cells packed together, their long axis lying in the same direction. Another portion consisted of small rounded granular cells; and these granules, nothing more. It might be classed under that division called recurrent fibroid tumors. It would be interesting to follow the future progress of the case, and he hoped Dr. Buck would again report to the Society respecting it.

Melanotic Liver, Cancerous Surfaces of Heart, Lungs, and Kidneys.—Dr. A. CLARK presented a specimen of *cancerous disease* (melanotic variety) of the *liver*, very similar to one brought to the notice of the Society about a year since by Dr. Sayre, though not so large, this weighing some sixteen or eighteen pounds, while the one shown by Dr. S. weighed 23 pounds. The specimen was sent to him by Dr. John Turner, of King's County Hospital, who writes that little is known of the history of the case; the patient stated that about a year since he first experienced difficulty of breathing. Four months ago he was attacked with pain in the right side, for which he was cupped, etc. The left eye was affected at the same time, and sight was soon lost. The liver rapidly increased in size, and after admission to the hospital, his limbs became anasarcous, bowels loose, assumed the cancerous cachectic appearance, and soon sank. The *autopsy* revealed the liver everywhere covered with melanotic deposits of various sizes. The heart is also dotted over with minute spots of black cancer, the lungs and kidneys also were dotted with a similar substance.

Perforating Ulcer of Stomach.—Dr. J. FOSTER JENKINS presented for Dr. E. H. PARKER a specimen of simple perforating ulcer of the stomach situated in the upper anterior portion of the organ near its lesser curvature. It was on the mucous surface about one-half inch in diameter, and nearly circular. On the peritoneal surface it was oval, its diameters being one-quarter and one-eighth of an inch. Its appearances were those usual to this pathological condition. The following history, meagre as it is, is all that could be obtained by the coroner called to make the investigation into the cause of death.

The subject was an Irish woman, about 35 years old, who died March 8, the autopsy being made twenty-six hours after death. Since the birth of her last child, now six months old, she had not felt entirely well. On the 4th of March she complained of a "pain inside," but kept about the house until the 7th, when she went to bed with "severe cramps" over the whole abdomen, and extreme mental anxiety about not passing urine, of which it is alleged there was none

for the last day or two. The cramps increased with "choking and smothering" (as the witnesses said) until death, which occurred at half-past eleven o'clock the next morning. During the last twenty-four hours she drank, according to her husband's statement, about two water pails full of tea. About six quarts of fluid were found in the peritoneal sac made up of fluids taken as drink, serum, and half a pint of pus. Evidence of extensive acute inflammation existed throughout the whole peritoneum. The intestines were largely distended with flatus. The bladder was empty; the liver of a very light color. The stomach was about one-third full of ingesta, as castor-oil, food, etc. Beside some old and firm pleuritic adhesions, the other organs were healthy.

Cirrhosis—peritonitis.—Dr. LIVINGSTON presented a specimen of cirrhosis of the liver. Hugh McMullen, æt. 43, carpenter by trade, regular and temperate in his habits, consulted me about the first of January for an uneasiness he felt in the epigastrium. He raised large quantities of wind, his appetite was not so good as usual, and food seemed to distress him some hours after eating. About this time, he experienced a swelling in the epigastrium, which was sore under pressure, and made it difficult for him to stoop forward. In the course of a couple of weeks, he was forced to abandon his work, solely on account of the increasing difficulty of stooping; the swelling increasing all the time. His bowels acted regularly all the time, and I may here remark they have continued to move regularly every day up to his death.

His pulse was regular, respiration good; countenance rather sallow, but not jaundiced. He now began to vomit more or less every day; only certain articles of diet would lie upon his stomach. About the first of February, fluctuation was distinct in the upper regions of abdomen. He now experienced tenderness over the region of liver, but pain nowhere else. He was quite dispirited and desponding. The urine was very scanty, and deposited a thick sediment, but became clear after adding nitric acid, and also by heat. Being now pressed for an opinion by his friends, I was compelled to give an unfavorable prognosis, and solicited the counsel of Professor Parker.

Dr. Parker saw him February 8th, and after examining the patient, indorsed my diagnosis of hepatic dropsy. He thought there was rather too much tendency of the region of the liver to be cirrhous, and that he would die within two months. From this time to his death very little change took place in his appearance or feeling. The abdomen increased somewhat; the appetite poor, vomiting almost everything. No particular pain, but general uneasiness. March 11th, he got up about eleven, A.M., put his pants on himself, and set up for some hours. About 6½, P.M., he walked to the bedroom, and sat down upon the edge of the bed; his son was standing by to assist. His wife just left the room a minute, when the son screamed, and she rushed to his assistance, and found him thrown back upon the bed, his feet upon the floor, and quite dead.

Post-mortem, seventeen hours after death.—Rigor mortis well marked. *No discoloration* upon the surface of the body save around

the left ear. *Emaciation* not very marked. *Abdomen* much distended, particularly in the region of epigastrium. Introduced a trocar into the cavity on left side, about midway between umbilicus and spinous process of ilium, from which flowed about two quarts of light straw-colored serum, which almost entirely coagulated by heat. The abdomen, as now felt, gave the impression of a large, solid tumor, filling a large portion of its cavity. Upon opening into the cavity, the *peritoneum* was found to be very much *thickened* throughout its whole extent. The *intestines* were bound together, so as to be scarcely separable. The mesentery so thickened and firm as to feel quite like a multo-lobular, fibrous tumor, and at once explained the cause of the sensation experienced after handling the surface of the abdomen. The abdominal cavity was divided into many cyst-like compartments, by means of fine adhesions, all of which contained fluid, differing but slightly from that first drawn off. A sort of *honeycomb* arrangement, occupying a space between the stomach and diaphragm, contained a thin jelly-like substance of a deep amber color, not unlike that found in ovarian dropsy. The whole amount of fluid found in this cavity was about twenty-four pints. The stomach was large and empty, otherwise healthy in appearance. The liver, spleen, pancreas, and kidneys were removed for examination. Upon opening the thorax, the *right* pleural cavity was found to contain about two quarts of serum, in appearance resembling that found in the cavity of abdomen. The right lung was apparently healthy. The pericardium contained full a pint and a-half of serum, and extended up to the apex of left lung, the supine border of clavicle. The pericardium was much thickened, as was also the right pleura. The left lung was not larger than a small-sized fist, and was so thoroughly glued to the pleura costalis that it could not be separated without lacerating the substance of the lung. The heart was removed for inspection.

BELLEVUE HOSPITAL.

SERVICE OF DR. JAMES R. WOOD.

Case 1.—*Encephalitis following Scalp Wound—Paralysis and Coma—Trephining with discharge of pus—Temporary improvement—Death—Autopsy.*—(Reported by Dr. GEO. K. AMERMAN, House Surgeon.)—George R., aged 21, born in New York, by occupation a machinist, was admitted to Ward 18, on Friday, May 2, 1856. The day previous to his admission he received a blow on the head, with a cleaver, which produced a scalp wound two inches in length. Its anterior extremity was situated three and a half inches above the supra-orbital ridge and half an inch to the left of the mesial line. It extended backwards in an oblique direction, its posterior extremity being over the sagittal suture. The soft parts were completely divided; the bone and periosteum apparently healthy. He was a robust man of very intemperate habits but denied ever having had syphilis. His appetite and strength were good. He walked about the ward and yard, for two days after his admission, and when asked how he felt replied "well enough."

On Monday, May 5, third day after admission, the left side of his face became swollen, hot and painful, especially about the lower jaw. The slightest pressure over the body or ramus of the jaw, on that side produced severe pain. Leeches and warm fomentations were used with free purgation. On Wednesday, fifth day after admission, the pain had nearly ceased, except a feeling of tension, but the tumefaction remained. An explorative puncture was made, commencing the incision at the margin of the alveolar processes and keeping close to the jaw, extending it downward near its lower border. About one drachm of pus was discharged, as the lancet was withdrawn, and on introducing a probe, it was found that nearly the whole of the left half of the lower jaw was carious. A poultice was applied, and subsequently, a counter-opening made, which afforded complete relief of all the symptoms. The internal opening remained patent, and unhealthy pus, in considerable quantity, continued to ooze from it. The teeth of that side fell out. The wound of the scalp showed no evidences of healing, the few granulations about the edges being weak and flabby. The cranium was denuded and carious.

His general condition remained good until the 12th of May, eleventh day after admission, when he began to complain of weakness, loss of appetite, a curious sensation about the head, (which he was unable to describe) and sleeplessness. During the day he was comparatively well, his bowels were regular, tongue and pupils natural, and pulse normal.

On the 18th of May, seventeenth day after admission, he was found sitting up and breathing rapidly, his eyes staring, and his answers to questions were hasty and petulant, as though he disliked to be troubled with inquiries. He had no fever, and, with the exception of his *eyes* and *manner*, nothing abnormal was observed.

May 19.—He was restless and sleepless last night and got up several times to walk about the ward; pulse 84; respiration 26; skin warm and moist; tongue slightly covered with a white fur; eyes looking better; pupils normal; no tendency to coma; no paralysis.

Seven o'clock P.M.—Intense chemosis of both eyes; patient irrational; when asked a question he either repeats it or gives some answer entirely disconnected with it; bowels not moved since day before yesterday; ordered a cathartic of oleum ricini.

May 20.—Pulse 74; respiration 24. Patient when undisturbed lies as if he were quietly sleeping. When his eyes or the wound is rudely handled, he resists, and when spoken to is easily aroused, but cannot be made to answer any questions. The ecchymosis of the eyes is extreme, and the conjunctivæ project between the lids; pupils normal, and act well; tongue covered with a thin white film; no paralysis; bowels still costive.—Ordered an injection of ol. ricini and ol. terebinthini.

May 21.—Pulse 80; respiration 28. He was delirious the greater part of last night, and was walking about the ward. His bowels moved freely after the injection, with a copious passage of urine. He is now semi-comatose and incapable of being aroused, except on very rude handling. When asked to put out his tongue he seems to understand

what is said to him, and makes a feeble effort to obey; skin hot and dry. No increase in the temperature of the head; pupils normal, and act promptly under the stimulus of a strong light; echymosis of the eyes same as at last note. Occasionally, in expiration, there is a slight puffiness of the lips and cheeks; there is, also, complete paralysis of the right side. Sensibility as well as mobility being entirely lost in the right arm, but slight sensibility of right leg remains. At half-past ten and eleven o'clock A.M., he had a convulsion; it began on the right side of the face, then extended to the arm and leg of the same side, and finally, the whole body was in spasmodic action; it lasted about one minute, and resembled a paroxysm of epilepsy, except there was no foaming at the mouth, and no unusual drowsiness following them.

Half-past one o'clock P.M.—Pulse 108; respiration 36. He has had several convulsions during the forenoon, but his other symptoms have not materially changed. It was now decided to apply the trephine, on the supposition that matter had formed between the dura mater and scull. The external wound was lengthened to the extent of three inches, and a transverse one of one and three-fourths made to meet it at right angles on the left side. The pericranium was easily detached the bone appearing of a dead white and the instrument placed over the carious part of the cranium, a little to the left of the mesial line. On passing through its external table a small quantity of pus escaped which came from the diploe. When the internal table was partially divided pus welled up through the wound.—When the bone was entirely removed a small quantity only, of pus was discharged. The dura mater was of a brownish hue, roughened, non-pulsating, and slightly protruded through the cranial opening. It was thought advisable to perforate the membrane, which was done with a thumb lancet making one longitudinal incision. About two drachms of pus escaped from the opening. There was some venous hæmorrhage from the internal veins of the scull, otherwise the bleeding was slight. After the operation the flaps were replaced and cold water dressings applied over the part. Pus continued oozing from the opening. Pulse 80; respiration 30; skin warm and moist; pupils natural; paralysis of right leg *entirely* disappeared—right arm *very much* less but *not entirely* removed. Coma and insensibility the same as before the operation. Ordered an enema to be given immediately.

At 8 o'clock, P.M., the convulsions returned. He had one at 8 o'clock, another in ten minutes, and a third at half-past eight o'clock. They lasted about half a minute, affecting principally the right side. His respiration, immediately *before* and *after* each attack, was labored and irregular. Ordered the cold water dressings discontinued. The enema produced a free movement of the bowels.

Twelve o'clock, midnight.—Pulse, 80; respiration, 30 and easy; no recurrence of the convulsions since last note.

May 22, 7 o'clock, A.M.—At 2 o'clock, this morning, the convulsions returned, coming on at short intervals, until 6 o'clock, during which time he had five paroxysms—four slight, and one very severe. His urine and fæces are passed in bed, and yet he seems conscious of what is transpiring about him, although unable to speak. Respiration, free

and easy. Wound still discharges pus. The muscles of the tongue, and right side of the face, are nearly in constant spasmodic action. The ecchymosis of the eyes is considerably less than yesterday. Pupils, natural; pulse, 78.

Seven o'clock, P.M.—Very little change during the day; no paralysis; when asked to raise his right arm, he immediately obeys. Respiration the same; wound the same; pulse, 80.

May 23.—Patient spent a quiet night, with the exception of having had three convulsions. The same spasmodic twitchings of the muscles of the tongue, and right side of the face, as yesterday. The swelling of the eyes less. Pupils and skin normal. Occasionally the muscles of the larynx act spasmodically, and his breathing becomes irregular. It also, occasionally happens, that the right arm and leg are affected in the same way. Consciousness, the same. He urinated this morning, when told to, and also drank some milk. Wound, discharging pus. There is now, again *complete paralysis* of the right arm and leg.

Eight o'clock, P.M.—Patient has had, during the day, several severe convulsions, and is now wholly insensible and incapable of being aroused. *Complete paralysis* of the right arm and leg, with, at the time of the convulsions, spasmodic twitchings of the muscles. Respiration, free and easy; pupils natural, and act promptly.

May 24.—Patient died at 7 o'clock this morning. I learned from the Orderly of the Ward, that, during the night, he had severe convulsions almost constantly. The last came on about fifteen minutes before he died; after it, his respiration was free and easy.

Autopsy twelve hours after death.—Weather, warm; no rigor mortis. The lower jaw was not examined. On removing the calvarium, the dura mater, about the site of the injury, had a purplish gray appearance, and fluctuated. On dividing it, about one half an ounce of pus escaped. The whole of the convex surface of the left hemisphere, except its posterior convex extremity, was covered with a layer of pus and false membrane. The pus extended down between the sulci, but distinctly limited to the convex surface; there was none between the hemispheres. The membrane was firm, and could be raised and peeled off with a scalpel quite easily. Some white opaline spots and lines, following the course of the vessels, were observed on the right hemisphere, but no pus or distinct fibrinous effusions. The base of the brain was healthy; all the thoracic and abdominal organs were healthy.

Remarks.—On reviewing the symptoms in this case, we find that the pulse and pupils were nearly normal throughout. The pulse, at no time, was higher than 108, or lower than 74. In force and fullness nothing unnatural was noticed. The pupils were perfectly normal, and acted well; the respiration was accelerated, but easy. There was nothing simulating stertorous breathing at any time.

The paralysis and convulsions were the most important symptoms. The paralysis appeared first and affected the right side. The convulsions followed the same day, and began on the right side, in the same set of muscles that were paralyzed, and were chiefly confined to that

side; so that, we had, alternately, paralysis and convulsive movements of the same part, produced, apparently, by the same cause. After the operation, both these symptoms were, for a time, absent. The convulsions, however, recurred in seven hours, and the paralysis in forty-one, and they again alternated, in the same manner as before.

The extensive necrosis of the inferior maxilla, without any assignable cause, and which occurred, according to the patient's assertion, after his admission to the hospital, is an interesting feature in the case. He had never received any injury to the part, nor could it be traced to previous habits.

Case 2.—Abscess of Leg terminating in a running sore—Recovery—Supervention of Head Symptoms—Convulsions—Coma—Trephining—Improvement—Death—Autopsy.—(Reported by DR. S. TEATES, House Surgeon.)—John S., aged 33, born in Ireland, a fruit dealer by occupation, was admitted into Bellevue Hospital, June 18th, at 3 o'clock P.M. The following history was obtained from his wife. He was of temperate habits, never had had syphilis, and was in the enjoyment of good health until five years ago, at which time he had a swelling on the left leg, regarded as a furuncle, which broke and left a running sore. In six months he was cured of the ulcer, which has never troubled him since. About four months after it was healed, he began to complain of a severe pain in the head, and soon after he had a "fit," which lasted one hour.

These "fits" have recurred *yearly* since. During the last two years he has had *constant* pain in the head, and a strong disposition to sleep. Last fall, a soft swelling made its appearance upon his forehead. It was red and painful. Four months ago it opened spontaneously, and has since been discharging pus of an unhealthy character. One week ago he became stupid, and was with great difficulty made to answer questions. Since day before yesterday, June 16th, he has not spoken. He seems to be unable to swallow, and has taken very little nourishment. Bowels have been confined for two weeks.

At the time of his admission, he was entirely unconscious, pulse slow and full, respiration stertorous. Skin moist, tongue coated with a brown fur, sordes upon the teeth and lips, and eyes closed. There was an ulcer situated to the left of the centre of the frontal bone, at which point it was denuded, white and carious. It was decided to trephine without delay.

The instrument was placed posteriorly to the dead portion of bone, and on removing the disc, several ounces (at least three or four) of tolerably healthy pus welled out with a pulsatile movement. Following the discharge of pus, was a smaller quantity of serum. Several pieces of dead bone were removed, and the little finger passed in its whole length, extending, apparently, into the left lateral ventricle. The walls of an abscess could be clearly traced. Immediately after the discharge of pus the patient rallied. The pulse became more frequent and less full, respiration normal. Eyes open and in good condition. He seemed to be conscious of what was transpiring about him, and when asked a question responded in the affirmative. After the

hæmorrhage was checked, the wound was dressed with cold water dressings, and beef tea given freely.

Five o'clock, P.M.—Two hours after the operation, pulse 100; respiration 32.

Eleven o'clock, P.M.—Pulse 94; respiration 32. When asked if he did not feel better, replied "certainly."

June 19, 9 o'clock, A.M.—Spent the night very well. Was quiet and slept a part of the time. He is quite sensible this morning, and answers questions readily. He has no paralysis. The wound continues to discharge pus. Pulse 84; respiration 22.

June 20, 8 o'clock, A.M.—Was restless and sleepless the greater part of last night. This morning his condition is much worse. Pulse 112; respiration 30. Complete unconsciousness.

June 21, 8 o'clock, A.M.—Pulse too rapid to count. Respiration between 50 and 60. At noon, sixty-nine hours after the operation, he died.

Autopsy, thirty hours post mortem.—A large portion of the frontal bone was carious. On removing the calvarium, there was found situated on the left hemisphere, under the dead bone, a ring of old false membrane, two and a half inches in length, and one half an inch in diameter. Its internal attachments were to the edges of an abscess. The abscess was one inch in its shortest, and four inches in its longest diameter. It extended into and involved the left lateral ventricle. The base of the brain was also covered by a false membrane. The substance of the brain appeared normal.

The lower lobe of the right lung was in the second stage of pneumonia. Left lung healthy. Abdominal organs healthy.

Case 3.—*Malignant Tumor of the Antrum—Ligature of the Common Carotid—Subsidence of the Tumor—Complete Recovery.*—(Reported by Dr. F. V. White, House Surgeon.)—Peter Gallagher, single; aged 53 years; native of Pennsylvania; was admitted into Bellevue Hospital, June 12, 1856. He has been intemperate from the time he was twelve years of age, and some of the time he has used liquors to the greatest excess. By occupation, he is a tailor; is of a feeble constitution, but has generally enjoyed pretty good health; he has had the diseases of childhood; has not had syphilis; had gonorrhœa a number of times, but had no trouble following, except a slight stricture of the urethra. He has led an itinerant life; has a vivid imagination; has had anxiety on account of his intemperate habits, and also, on religious subjects; has had *mania a potu* three different times; no hereditary taint traceable.

In March, 1855, he was on a spree in North Carolina, became intoxicated, and awoke the next morning, with the right side of his face resting upon some sheets of zinc, in the upper portion of a building, in an exposed situation; had taken cold. On looking in a glass he discovered that he had a small swelling on his right cheek, below the eye, with some redness. He did not notice it till he looked in the glass; the swelling did not increase much, nor give him much pain, or any trouble, till December last, at which time he applied Mustang Lini-

ment to his face. He states, that in forty-eight hours after its application, the swelling acquired its present size, but he continued the use of the liniment at intervals. The patient's opinion is, that the liniment, and the cold he took, produced all the trouble. He states that cold water, and cold and wet weather, produce soreness and pain in the tumor. He had no pain of any consequence until last December, after he had applied the liniment, subsequently it pained him very severely, and for three weeks he did not obtain much relief. His teeth in the right superior maxilla commenced to pain him and also to decay. They were all extracted, with the exception of the last molar tooth, to the left central incisor; the gums were tender and painful; could hardly masticate food of any kind without pain. He has not had a great deal of constitutional irritation, and has not been confined to his bed more than a day or so. The tumor is situated on the right cheek, is conical in shape and uniform, extending transversely from the ear to the nose, pushing the latter to the left side, and closing both nares to a greater or less extent. Longitudinally it extends from a line drawn from the angle of the mouth, to the inferior portion of the lobe of the ear inferiorly; superiorly to the eye, which is closed by its pressure. Five weeks previous to admission into the hospital, the tumor was opened at a point where it appeared to point with matter, a little below the eye towards the nose; the patient says coagulated blood and matter came out. Upon admission, there was a more or less discharge, of a yellow, brownish character; it was examined under the microscope, and found to be of a malignant character. The *diagnosis* was encephaloid disease of the antrum. The predisposing cause was his dissipated mode of life and his mental anxiety; the exciting cause was, probably, his face having rested on the zinc, taking cold, and the application of the liniment.

Upon admission, his general health was good; he had no pain in the tumor, and remedies were given to improve his general condition. A consultation was held, June 14, and it was determined to apply a ligature to the common carotid artery. The operation was set down for June 28; ether was administered, but as the patient came under its anæsthetic effects tardily, chloroform was used. The patient did not inhale the anæsthetics well, on account of the tumor pressing upon and obliterating, to a greater or less extent, both nostrils, it was, therefore, discontinued. His breathing caused such violent movements of the neck, that it was decided to be unsafe to perform the operation while the patient was under the influence of an anæsthetic. As he continued bewildered from the effects of the chloroform already inhaled, it was considered unsafe to perform the operation, and it was postponed to July 2. The operation was performed by Dr. Wood, in the presence of a large audience of physicians and surgeons and medical students. The artery was tied in the inferior carotid triangle. The internal jugular vein was not seen during the operation. The patient bore the operation well. The wound was brought together with the interrupted suture, and supported with strips of adhesive plaster.

At the evening visit, found the patient very comfortable; pulse, 100; complains only of difficulty of deglutition, probably produced by

the dressings; the tumor appears slightly swollen, the temporal arteries noticed to be enlarged on both sides of the head; an anodyne was ordered.

July 3.—The patient slept well, pulse, 97; to-day, the pulsation of right temporal artery was felt, the blood coming from left temporal artery; patient, doing very well.

July 4.—Everything favorable; with an anodyne, slept well.

July 5.—Pulse, 92. Dr. Wood dressed the wound to-day; found union by first intention.

July 9.—Doing well, with the exception of a slight attack of diarrhœa, for which mild astringents were prescribed. Dr. Wood dressed the wound to-day; the tumor is rapidly disappearing.

July 12.—Dr. Wood dressed wound to-day; sleeps well; everything favorable in his case.

July 13.—Passed a good night; the wound was dressed; Dr. Wood made slight traction on the ligature this day; still tight and firm; there was a discharge of two or three drops of healthy pus from the wound occupied by the ligature; the remainder of the wound had united firmly by first intention; pulse, 96; yesterday and day before it was 88.

July 14.—Did not pass a good night; was somewhat delirious; had diarrhœa; pulse, 100; dressed the wound; slight erythema about the ligature; the tumor appears to diminish daily. Dr. Wood made traction on the ligature, a few drops of pus were discharged, the ligature still firm, the wound re-dressed.

July 15.—Ordered, last evening, two powders of pulv. doveri 3 ss. each, to be given at intervals of an hour, as an anodyne, and to relieve the diarrhœa; had a restless night; bowels still too free; pulse, 100; on slight traction of the ligature there was a discharge of a little blood with pus; ordered equal parts of tinct. opii. camp. and misturæ cret. prep.; a teaspoonful after each movement of the bowels.

July 16.—Ordered, the night before, pil. opii. gr. i; one to be given every hour till sleep is obtained, and to relieve the diarrhœa; passed a better night before; took six of the pills; quite sleepy this morning; dressed the wound; pulse, 88. Dr. Wood, on his visit, removed the ligature upon slight traction. This is the fifteenth day after the operation.

July 17.—Passed a very good night; took four of the pills; had two stools; renewed dressings; considerable discharge of pus from the wound; pulse, 88.

July 18.—Pulse 100; diarrhœa worse. Dr. Crane visiting for Dr. Wood to-day. Directed for his diarrhœa, 3 ss doses of tinct. opii. camp. and catechu, with five grs. of soda bicarb., every two hours. There being inflammation about the wound, a poultice was applied.

July 19.—Diarrhœa not relieved; the poultice relieved the inflammation about the wound; dressed it this morning without a poultice. Pulse 88.

July 21.—Everything favorable; diarrhœa relieved.

July 22.—Diarrhœa returned with severity. Dr. Crane ordered pills containing tannic acid, grs. two, pulv. opii. grs. ss., every four

hours. For food, arrow root prepared with brandy and spice. Pulse 80.

July 23.—Pulse 88; had three passages during night, one during the day. Continued the directions of yesterday. There is no discharge of matter from the part of the wound where the ligature was; healing by granulation.

July 24.—Pulse same as yesterday; had no stools last night, two to-day. The tumor has been gradually disappearing until to-day, when it appears enlarged and inflamed, but not of its original size.

July 25.—Pulse same as the day before yesterday; had two stools during night, the same number during the day. The tumor increased in size since yesterday, and still inflamed. Ordered lotio. plumbi. et opii. to be applied.

July 27.—Appearance of tumor is more favorable to-day. That part of the wound where the ligature was, is not so favorable to-day; removed the scab that had formed, when there was quite a discharge of pus. On the evening visit, finding considerable induration and erythema about where the ligature was, ordered a poultice to be applied. Pulse 96. Appetite pretty good; does not complain.

July 31.—Pulse 96; two stools during night and day; had an attack of epistaxis to-day. Dr. Wood, on his visit, requested a bladder of ice to be applied to the tumor. It was applied, but the patient would not continue it, on account of the pain it produced.

August 2.—Pulse 96; no stool last night; two to-day; had another attack of epistaxis, not much blood lost at either time. The inflammation has subsided in the tumor; its size has diminished greatly; it is quite small at the present time.

August 3.—Pulse same as yesterday; had one stool last night, two to-day; had another attack of epistaxis to-day. Dr. Wood, on his visit, ordered powdered matico leaves to be used as a snuff, it acted as a sternutatory. The tumor the same as yesterday; patient for the last few days, has been walking about.

August 5.—Pulse 100; had two stools during the night, two during the day. Pills composed pulv. opii. grs. ss., and sulph. quiniæ grs. i., with two grs. of ext. gentian, were ordered every four hours.

August 8.—Pulse 116; two stools to-day. The tumor discharges to some extent from its opening; no opening in the mouth.

August 10.—Pulse 106; the tumor has swelled considerably, extending down the cheek. Applied lotio. plumbi. et opii.

August 11.—Had two stools during the night. The tumor has greatly diminished in size.

August 13.—Bowels regular; pulse 120; tumor has nearly disappeared.

August 18.—Bowels regular; the tumor is in a satisfactory condition; some discharge from the opening; patient says he is cured. Some exuberant granulations appeared where the ligature was applied. Argenti. nit. and straps applied.

August 19.—Pulse 92; diarrhœa returned; two passages during night, four during day. Ordered the same pills as before, to be taken every four hours.

August 20.—Pulse 120; bowels checked; region of tumor is a little inflamed and swollen.

August 21.—Pulse 116; bowels regular; the face being as it was yesterday. Applied lotio. plumbi. et opii.

August 25.—Pulse 112; bowels regular. The face is disfigured from the tumor, still it is nearly natural.

August 26.—Pulse 108; bowels regular; condition good; some discharge from the openings on the face; simple dressings are applied to the openings. The granulations where the ligature was removed are still somewhat exuberant. Applied argenti. nit. and adhesive strap. The patient went out of hospital on pass to-day.

August 27.—Pulse 100; bowels regular. The granulations about wound, where the ligature was, have about disappeared. Applied the straps. Some induration about it, one third of an inch in width, to one in length.

August 28.—Pulse 104; doing very well.

August 29.—Pulse 92; bowels still regular; general condition very good; no induration about the wound where the granulations were. The patient has had a generous diet, both animal and vegetable; also, has had every day, either port wine or brandy, generally the latter. The diarrhœa was the most troublesome complication, but the patient never complained of pain, or soreness about the abdomen. The stools passed almost involuntarily; never had more than six in a day; complained of debility but once.

The ligature was removed the fifteenth day after the operation. There has been no hæmorrhage.

JEWS' HOSPITAL

History of Cases and Treatment of Acute Articular Rheumatism or Acute Rheumatic Fever. By M. Blumenthal m.d., *Resident and Attending Physician.*

In submitting the annexed cases of disease treated in Jews' Hospital the writer cannot and does not claim any originality in either treatment or method. They are communicated not to exhibit any novelty, but simply and merely as an index showing the treatment pursued and the results attained at our Hospital, and thus comparing them with those of other kindred institutions.

Particular attention has been drawn of late to the use of Rochelle salts in acute rheumatism, having been lauded as a sovereign remedy; and numerous cases of its speedy effects in relieving and curing the disease have been reported.

This high reputation has not been sustained in our practice. Rochelle salts in common with other neutral salts and alkalies tend to neutralize the acid urine and to produce a change in the state of the blood incompatible with the inflammatory process; but it does not, according to experience in our wards, excel the effects in general, nor produce those effects more speedily, than other potash salts, namely, the nitrate.

We have been in the habit of using nitrate of potash for several years past and in numerous cases of the disease in question, and each year tends to increase our confidence in its reliability and efficacy when trusted to almost alone, having been enabled to dispense with blood-letting even of a local character, in most cases excepting of course the most intensely inflammatory.

It has seldom happened that serious complications set in when such treatment was pursued, providing the patient had not been carelessly exposed during the progress of the disease; thus all the cases in which pericarditis or endo-carditis manifested themselves had been subjected to exposure either at home or on their way to the Hospital. That such complications, however, do present themselves occasionally, even in the best managed cases, no one that has seen much of the disease will doubt. There is this fact, however, which has become more and more evident, namely, that the danger of cardiac complications in its immediate results as threatening a fatal result has been greatly exaggerated; very few patients die of the acute disease when occurring as a complication in rheumatism, although the effects of the complication in their ultimate results, and especially if affecting the endocardium, namely, the valves of the heart, are none the less threatening and fatal not so much in themselves as from the dangerous congestions of the brain, lungs, kidneys, etc., which they produce.

Always looking upon such complications then as serious—dangerous in their ultimate effects if even less so at first, we have believed it necessary to resort, when such inflammation supervenes, to more specific remedies as directed against serous membranes, namely to mercury, and we have never seen reason to regret our course.

Diaphoretics at night, combined with anodynes in the form of Dovers' powder, claim, as all concede, a fair share of credit, and in common with all who have employed them we testify to their efficacy; there is of course, in the administration of this as in that of all other sedatives or anodynes, one great point to be regarded and that is to give *a dose large enough to produce the desired effects—sleep and perspiration.*

After the acute symptoms and fever have sufficiently abated or entirely disappeared, and there are still traces of irregular shooting pains through the system, to-day here and to-morrow there, we have employed with much benefit colchicum and aconite, with same object, as it were, as we give quinine even after the cessation of the intermittent paroxysm, as a preventive, or to erase the last traces of diseased action remaining.

These remedies aided, as occasion requires, by leeches, cups, blisters, or stimulating liniments, form our materia medica for this disease, finding more benefit in varying the proportions of the various ingredients than in changing the ingredients themselves. Whilst constipation or diarrhæa are to be met by their appropriate remedies.

Within the space of a few months, from October, 1855, to March, 1856, we have had eight cases of the acute inflammatory disease, and we now propose to transcribe a few from our case book.

Case 1.—Elias B., æt. 38, married; shopkeeper; native of England, of a strong muscular development and sanguine temperament, was

admitted January 20, 1856, suffering from pain in joints and fever. He had been sick a week previous to admission. Has had a similar attack twelve years ago. He was first attacked with pain in the right knee, which then shifted to left knee and ankles, and then to wrists; these articulations being successively red-hot, swollen, and painful. On admission eighth day, his state was as follows:—General appearance of features expressing pain and uneasiness; impossibility to move or be moved without agony, as all the larger joints were affected; pulse 110, full and bounding; tongue furred whitish, with red edges and tips; skin, soft and moist; perspiration, profuse and acid; bowels, costive; urine, scanty, very acid, with a specific gravity of 1023; heart's action, normal; sounds, clear and distinct.

Ordered nitrat. potass. ℥i., bitart. potass. ℥ij. tinct. opii. c. ℥iv., aquæ ℥v., syr. simp. ℥i. ♏. Take every two hours a table-spoonful. At night, sol. sulph. morph. $\frac{1}{8}$, $\frac{1}{4}$ gr.

January 21.—Pain less severe; knee joints considerably swollen and tender. Continue medicine. Dover's powder at night.

January 22.—Pain much relieved; slept well during night; fever much reduced; bowels operated; feels easier and refreshed after night's sleep; no cardiac complications; medicine discontinued, and tr. colchicum, fifteen drops, every two hours.

January 25.—Seeming more unwell to-day; some pain in joints again and fever; returned to alkaline treatment, which soon afforded relief.

February 2.—Discharged cured. Duration of disease, twenty-two days. In hospital, thirteen days.

Case 2.—A. L., æt. 33 years, married; butcher; native of Germany; was admitted March 16, 1856, complaining of pains, etc., fever. On examination, it was learned that several years ago he had had an attack of syphilis, and since then had at times been subject to pains in his bones. He now had fever, flushed face, hot skin, constipation and swelling, redness, and pain in left knee, from which it passed to right arm and shoulder, and then to left shoulder, and back again to the knee, where it had commenced. The tongue was red at edges and tip, with white fur in centre; skin hot and dry; great thirst and restlessness. Rochelle salts in ℥i. doses were given every two hours, and cups applied to right knee. This treatment continued till 20th with but little advantage, when nitre ℥ iss., tr. opii. c. ℥ ij., aq. ℥v., syr. simpl. ℥i., was ordered. Every two hours a table-spoonful. This continued till 22nd with but slight improvement; pains in the knee and shoulder being unabated. Volatile liniment was now applied in addition to continuance of medicine, and relief produced. The urine had become neutral.

April 1.—Is much improved; bowels costive; ordered a powder of rhubarb gr. x., jalap gr. xv.

April 6.—But little change from last report; brisk cathartic; syphilitic complication being suspected, iodide of potassium ℥i., water ℥vj. a table-spoonful three times daily, was administered.

April 13.—No improvement. The nitrate of potas. treatment was now resumed, and patient was discharged cured, April 25, 1856.

Case 3.—H. W., æt. 27, single; clerk; native of Germany; was admitted March 18, 1856, with acute rheumatic fever; had been sick four days previous to admission. Now suffers from pain in the shoulders; fever; pulse being about 120, full and hard; skin soft and perspiring; tongue whitish; urine acid and high colored; bowels, costive. Ordered hydrarg. sub. mur. gr. viij., jalapæ gr. xii. Take at once; followed at night by Dover's powder, gr. x.

19th.—Patient complains of pain over the region of the heart, to which place six cups were applied and considerable blood taken, after which he received an enema of fol. sennæ, ʒiss, and having had no operation from his bowels, magnes. s. ʒi.

20th.—Marked intermission in pulsations of heart; increased space of dullness on percussion, with faint friction; sound pain and oppression persistent, but less severe. Ordered hydrarg. sub. mur. gr. xii., ṁ. six powders, every two hours. Dover's powder gr. xxx., ungt. simp. ʒi., ungt. hydrarg. 3 ijss., to be rubbed over the region of the heart, and Dover's powder at night.

21st.—Slept some during the night and perspired freely; feels easier; pulse became accelerated in course of the day; dullness on percussion increased, and sound of the heart more distant. Continue ointment, and powders as above, which, running off by the bowels, ordered Dover's powder.

22nd.—Passed night well and is much easier; purging continues. Treatment continued with addition of opium gr. ½ to each powder. Dover's powder gr. xv. at night.

23rd.—Commenced Rochelle salts a drachm every two hours; urine acid.

24th.—Passed an easy night and seems improved. Urine still very acid. Treatment with Rochelle salts continued, and Dover's powder at night.

25th.—Action of heart still irregular, though less distant; oppression of chest less; urine neutral; pain same as a day or two since, particularly confined to right shoulder and hand.

27th.—Stopped sal. Rochelle, no great improvement being found, and gave vin. sem. colch. ʒi., tr. aconiti. 3 i., vin. antimon. 3 iss, 25 drops every four hours.

March 29.—Treatment continued; oppression of heart less; respiration easy; but pain still in shoulder. Ordered liniment volatilat.

April 1.—Slept well; no pain; continued treatment.

April 6.—Pain in shoulder returned, though no fever. Ordered morph. acet. gr. ii., aq. ʒii. Take a table-spoonful every two hours, and use chloroform externally.

Pain persisting a blister was applied to shoulder on 10th, which relieved the pain, and the stiffness being overcome by motion gradually increased, patient was discharged, cured, April 23.

It is necessary that it be remarked here that the febrile disease was cured April 1, but the local affection at the shoulder prolonged this case to an unusual degree.

The quantity of nitrate necessary for one patient seldom exceeds from half an ounce to an ounce.

PART SECOND.

CRITICAL NOTICES.

ART. VIII.—*The Causes and Curative Treatment of Sterility, with a Preliminary Statement of the Physiology of Generation.* By AUGUSTUS K. GARDNER, A.M., M.D., etc., etc., etc. New York: Dewitt & Davenport, pp. 163.

THE manner in which this work is produced shows that there are publishers in this city willing to present medical works in a style highly creditable to them, and deserving the thanks of the profession. Were an enterprising man to offer more direct inducements, it is not likely that American medical works would be lacking. Illustrations are fast becoming necessities; the multiplicity of subjects offered to the reading public, demanding them on the score of perspicuity and time-saving; and the manner in which they are transferred, from book to book, show the avidity with which they are seized upon.

To transfer them, however, without acknowledgment, seems to us an offense akin to the similar use of a writer's words, and, when they relate to subjects of a delicate nature, every care should be taken to preserve that propriety which forms the barrier between the instinct of true professional feeling, and the prurient curiosity of the vulgar.

In the Atlas of Bandages, published by Professor Gerdy, all those applied to the legs, and thighs, are represented on the persons of females, placed in seductive postures, with an expression of voluptuous indolence, or of coy reluctance. It may be that the methods of application would, by impressing the young student more forcibly than simpler sketches, thus attain an end justifying the means.

But we suspect that the frontispiece of the work before us obtained its position through an accident of arrangement, since otherwise it would be fairly a subject of criticism. The beauty of the illustrations, by Sinclair, are unquestionable, and the profession are already familiar with his abilities from those contained in Dr. Meig's valuable paper in the sixth volume of the Transactions of the American Medical Association.

Two of these are reproduced with an allusion to their source, and nothing can be better adapted to show the ineptness of the addition of the mons veneris, handle of speculum, etc., than a comparison of the appearances pictured in plate V.; the upper one being from Meigs. Two sections of the female pelvis, displaying the normal site of the viscera, and retroversion of the uterus are given in a similar style. But

we think that the woodcut from Simpson's paper presents the obliquities of the uterus in a more forcible manner. Tyler Smith's work on leucorrhœa has contributed the drawings necessary to display that minute anatomy, without which, the present state of knowledge on this subject cannot be satisfactorily shown; while the drawings collected by Simpson, in his paper on Polypi, with Bennett's Section of the Uterus, a number of well-executed woodcuts of instruments and operations, and the development of the ovum, go to make up the profusion of illustrations scattered through the book.

The subject is well arranged, thus:—

Introduction;

I.—Physiology of Generation;
II.—Pathology of Sterility;
III.—Therapeutics of Sterility.

The Introduction is interesting; and the first part presents an agreeable abstract of its subject, which will prove attractive to those commencing the study.

Indeed, the style is that of a practiced writer, displaying, in portions, wit and originality, which enliven the work, while injuring its tone.

Part II. briefly sketches some of the causes depending on the male parent; and then considers those depending on the female; commencing with adhesions of the labia, and, following the organs of generation, step by step, to the ovaries, concludes with the mention of some constitutional causes; while Part III. considers the therapeutics of sterility, in similar progression.

Dr. Gardner, in common with all giving attention to the subject recognizes the existence of the different obliquities as much more frequent than he had been prepared to expect before the attention of the profession was directed to the subject, and has found them the cause "of sterility and dysmenorrhœa in very many cases which have, within a short time, fallen under my observation, and I am equally persuaded that I have passed by, unnoticed, many other similar cases, because my attention had not then been directed to them."

We believe that there are multitudes of such cases through the country entirely unrecognized; while the diagnosis is one of the simplest in uterine disease.

The author has "witnessed three cases where abortion took place, in consequence of slight extra-exertion, about the third month," where these versions were not of severe character.

He uses Simpson's intra-uterine pessary in rebellious cases, preceding its introduction by accustoming the uterus to its presence, by frequent preliminary introductions of the sound; a plan which we have followed with benefit.

Indeed, no one could imagine or foretel all the distress and inconvenience produced by a retroverted uterus alone, without having seen such cases—cases wherein the uterus would be normal in shape, size, and texture, with no alteration but that of displacement remaining. Dr. G. alludes to the proposal of Huguier, that these versions should be treated by distending the rectum or vagina. No one, now, men-

tions Velpeau's plan of introducing a piece of sponge enclosed in fine linen within the rectum, and probably for the reason, that in his words "il est, en effet d'un emploi difficile et fort incommode."

With a glance at the growths which forbid the entrance of spermatozoa within the uterine cavity, our author proceeds to "by far the commonest cause of sterility, as it has appeared to me—from disease of the os externum * * * Most barren women believe themselves in perfect health * * * are content with the idea of personal idiosyncracy. In a large proportion of these females a speculum examination shows greater or less degree of chronic inflammatory disease of the os and cervix uteri."

He speaks of "internal manifestations corresponding to external cutaneous affections * * * my own investigations have shown some facts not generally recognized."

Dr. Simpson first brought this point in uterine pathology directly before the profession; Tyler Smith alludes to it, and speaks of Dr. Barnes as having drawn attention thereto. Barrier has some observations bearing on infantile leucorrhœa from this cause.

The author then commences the consideration of the pathology of those conditions from which leucorrhœa springs, beginning with a prophecy, that will, we doubt not, be fulfilled to the letter—"before a very long time that name will be recognized only as the name of a symptom of numerous fully recognized disorders."

Indeed Bright's disease bore the same relation to diseases of the kidney, that leucorrhœa yet holds to those of the female generative organs; and the time is fast arriving when they both will be used only for convenience and from habit. Some ten pages are devoted to a synopsis of the recent views on the pathology of leucorrhœa; and sterility is spoken of as "the constant accompaniment" of the "raspberry os," from the fact that the disease seems to originate within the cavity of the os, and spreads outwards upon the os and cervix.

This we believe firmly. We have now under treatment a case where the ulceration has twice disappeared entirely from sight, and is again creeping from its lurking place.

Our author alludes to the increased risk of abortion, rather than sterility, from the presence of ulceration, especially the fissured varieties, bathed with pus; but believes fecundation nearly impossible where a thick, glairy, albuminous discharge blocks up the os externum.

Dr. Gardner believes this point to have been generally, if not universally, overlooked by practitioners—but we think that the following quotation, from Henry Bennett's work, expresses the same views with all-sufficient force, and is certainly better adapted for the purpose than the one selected:—

"When the os uteri and the cervical cavity are inflamed and ulcerated, the viscid muco-pus secreted closes the uterine cavity, and probably prevents the spermatozoa reaching the uterine cavity, where its presence is supposed by physiologists to be necessary for impregnation."—(Bennett, Eng. 2nd Ed. pp. 285.)

Nor do we think that the following quotation from Meig's paper,

already referred to, will admit of our author's criticism that he passes this point by "so casually as to deprive his remarks of much of their proper force."

"It may be proper to remark that, the state of the cervix so often referred to is, in all probability, one of the ordinary causes of sterility. In examining these structures after death, we have observed the whole cylinder of the canal of the cervix, to be filled or tamponed, so to speak, with a plug of viscid lymph, so obstructing the passage as to render it apparently impossible that any spermzoon could obtain access to the uterine cavity. Certain it is that some sterile women are always affected with this excessive albuminous mucous production.

We have met with instances of unrelieved sterility in women enjoying the most robust health, with the sole exception of this vexation, which never gave any pain nor modified the menstrual phenomena in the least. Many women, who had temporarily suspended the usual succession of their gestations, apparently in consequence of this derangement of their health, have again conceived after the cure of this albuminous leucorrhœa; or rather the inflammation of which it is the sign and the consequence,"—and so on.

These quotations appear to us to sum up the whole question. Young practitioners on the look-out for the "albuminous plug," had better be careful of the one alluded to by Tyler Smith, as an early sign of pregnancy. And, speaking of young practitioners, reminds us that both Gardner and Whitehead take the opportunity, in their works, of rapping the older members of the profession over their knuckles; though we suspect that if the sins of omission and commission were fairly tabled, neither class would be willing to commence throwing stones.

Stricture of the cervix is enumerated, for the which our author employs division with a probe-pointed knife, and dilatation with Simpson's sponge tents, of which he gives a drawing from that physician's paper on the subject, with one of the instruments by which their introduction is effected. This is one of the instances in which acknowledgment of the source whence this suggestion came would have been more creditable than the silence maintained. He says, "similar sounds may be made of gutta percha of such sizes as are wanted, by heating the gum in boiling water,"—which seems a convenient suggestion. Gutta percha, by the way, when kept too long, becomes too brittle for use; even boiling water failing to restore its texture. The reviewer had occasion to apply a splint of that material last evening, and used some that he had brought home with him from England, on account of its superiority, when he found that four years had sufficed to render it unfit for the purpose. The alterations, diseases, and displacements of the fallopian tubes are discussed; but it is admitted "that the diagnosis, if possible, is obscure, and the treatment of the most vague and unsatisfactory character."

Among the physical changes which are the cause of sterility, Dr. Gardner offers a statement for the verification of those enabled to make autopsies, viz.: that the cause of sterility in very fat women may be "the unusual deposit of fat around the uterus and ovary, bend-

ing down the fallopian tubes, enveloping and obscuring the ovaries, and offering an effectual barrier to the union of the ovum and the male fertilizing principle."

Polypi and their treatment are subjects of some consideration, and drawings of Luer's and Chassaignac's instruments are given. Dr. Gardner prefers pure silver wire as a ligature, which can be readily passed around and through the tumor, and easily *twisted.*

In the treatment of ulceration, Dr. Gardner confines himself to the nitrate of silver chiefly, with occasional use of iodine, borax, tannin, and bismuth, with the scarificator and leeches. He finds benefit from the ferro-cyanuret of potassium in cases of vaginal flux.

He concludes by recommending the cultivation of a frame of mind adapted to diminish the patient's regret, if her condition should prove hopeless.

We trust that we have done justice to the book before us, which, while it does not offer suggestions in pathology or therapeutics of an original character, yet presents, in a summary and convenient form, information of value to those desirous of guidance in these delicate and important cases; afflicting, as they so frequently do those to whom all other blessings have been granted. G. T. E., JR.

ART. IX.—*A Practical Hand-book of Medical Chemistry.* By JOHN E. BOWMAN, F.C.S. Second American from the third and revised London edition, with Illustrations. Philadelphia: Blanchard and Lea, 1855.

THIS is the third London edition of Mr. Bowman's work, it having passed very rapidly through two English editions. It is a most valuable hand-book for the medical student, who devotes any attention to medical chemistry, as it contains all the details of methods of analyzing the fluids, secretions, etc., of the body, and the means of detecting errors.

It is a work which every student should possess at this time, when medical chemistry is so much studied.

ART. X.—*A Manual of the Practice of Medicine.* By GEORGE HILARO BARLOW, M.A. and M.D., with additions, by FRANCIS CONDIE, M.D. Philadelphia: Blanchard and Lea, 1856. pp. 607.

THIS work, we believe, was originally designed to be one of Mr. Churchill's manuals for students. In that respect it is a useful work, and well adapted to its purpose. It is a systematic treatise upon the various diseases which are usually regarded as medical, each subject being discussed in a practical manner, with little attempt to theorize. The leading object of the author was to give a system of medicine, based upon etiology, or what he styles "*the natural history of disease.*"

We regard it as a very useful work for the student and young practitioner. The additions by the American editor are few and unimimportant.

ART. XI.—*The Action of Medicine in the System;* or "on the mode in which Therapeutic Agents introduced into the stomach produce their peculiar effects on the Animal Economy, being the Prize Essay to which the Medical Society of London awarded the Fothergillian gold medal for MDCCCLII. By FREDERICK WILLIAM HEADLAND, M.B., etc. Second American, from the second revised and enlarged London edition. Philadelphia: Lindsay and Blakiston, 1856. pp. 408.

FROM the preface to this edition of Mr. Headland's work we learn that the first edition has been some time out of print. This is gratifying evidence that earnest attention is being given to a branch of medicine hitherto too little understood. The science of therapeutics is at once the most important to the practitioner, and the most difficult of scientific investigation. The great mass of remedies which we employ are empirical in their administration.

We welcome, therefore, any systematic effort to reduce to scientific accuracy the action of medicines upon the animal economy. In an analytical review of the first edition of this work, we expressed a favorable opinion of the investigations pursued, and the results herein embodied, and recommended it to our readers. The present edition is still farther improved by revision and additions, and is still more entitled to the patronage of medical men.

ART. XII.—*An Introduction to Practical Pharmacy; Designed as a Text Book for the Student, and as a Guide to the Physician and Pharmaceutist, with many Formulas and Prescriptions.* By EDWARD PARRISH, Member of the Philadelphia College of Pharmacy, with two hundred and forty-three Illustrations. Philadelphia: Blanchard and Lea, 1856. 8vo. pp. 544.

WITH the results of the examination which we have given this volume we are well pleased. To the thousands of physicians in this country, to whom pharmacy is *necessarily* a collateral pursuit, as well as to students of pharmacy, this work is admirably adapted to fulfill many wants. To the practical pharmaceutist it is indispensable, particularly on account of the large number of formulas for new and improved remedies, obtained chiefly from the *American Journal of Pharmacy.*

ART. XIII.—*Elements of Medicine.—A compendious view of Pathology and Therapeutics; or the History and Treatment of Diseases.* By SAMUEL HENRY DICKSON, M.D., LL.D., Professor in the Medical College of the State of South Carolina. Philadelphia: Blanchard and Lea, 1855. 8vo. pp. 752.

THE merits of this volume should have claimed for it from us earlier attention. A careful perusal of it shows that it is the result of a

judicious collation of what has been esteemed most valuable in the learned author's former publications, with the addition of such matter as continued study and large experience has enabled him to add. The volume is admirably adapted to supply a want long since felt by the American student and young practitioner of medicine, with reference to whom it has evidently been prepared. This class will find it a judicious and valuable compend of the elements of medicine.

ART. XIV.—*The Medical Profession in Ancient Times.* An Anniversary Discourse delivered before the New York Academy of Medicine, Nov. 7, 1855. By JOHN WATSON, M.D., Surgeon to the New York Hospital. New York: 1856. pp. 222.

AMONG the regulations of the New York Academy of Medicine is one requiring the delivery of an address upon each recurring anniversary. The volume before us is the discourse for the year 1855, expanded into a volume of respectable dimensions, and of no small importance.

From the preface we learn, what the most cursory perusal confirms that "the work is the result of no inconsiderable research." Instead of resting satisfied with the simple statements of history, the author has endeavored to consult the earliest authorities. This renders the work something else than a mere compilation of facts and opinions of preceding authors, and gives to its style, as well as matter, a refreshing originality.

In a few introductory remarks, the orator deprecates criticism, propitiates the favor of his auditory, and introduces the subject of his discourse. That eloquence which gives spirit to the pulpit and to the bar, cannot be required of a physician. "The Genius of Medicine sits pensive and alone, her finger on her lips, as if admonishing her votaries by the example of her own silence, to bury deep within the recesses of their bosoms the disclosures of the sick." We cannot forego making the following eloquent extract from this introductory:—

"To the initiated, medicine is something more than a profession. It is a world within itself. It has its history, its philosophy, its politics, its literature, of which the world at large knows nothing. It has its organizations and institutions, its ranks and grades of honor. It has its subsidiary arts and occupations. It has its polemics and discussions, not always amenable to logic or to the learning of the schools. In ethics, traditions, and superstitions, it is older than the church. In use before the civil law, it recognizes no arbitrary enactments. Nature is its only court of equity. And who of us shall forget its ever-living charities; its moving scenes of joy and sadness; its many sunny aspects; its benignant, ennobling, liberalizing influences, which few beyond our own circle can properly appreciate, and none so well understand as ourselves."

Dr. Watson commences his history of medicine with the earliest organization of society, and traces it minutely through the periods of Grecian and Roman civilization. The history of the various sects and schools is given, with interesting biographies of their founders, and

judicious analyses of their doctrines and writings. Every portion of the work, and every subject, exhibits the most careful study and discrimination of authorities, and impresses the reader not less with the laborious research of the author than the authenticity of his conclusions. We regard the work, therefore, not only as highly creditable to its learned author, but as one that will reflect honor upon the Academy and upon the profession of this city. We trust it will be extensively circulated and read, confident that the student of medicine and practitioner, cannot better improve leisure hours than in the study of the early history of their art.

The following are the subjects of the several chapters: I.—The Condition of Medicine in the Earliest Organization of Society. II.—The Origin of Medicine among the Greeks. III.—The Asclepiadæ. IV.—Hippocrates and his immediate successors. V.—Pergamus and Alexandria. VI.—The School of Medicine at Alexandria. VII.—The Schools of Smyrna, Pergamus, and Epidaurus. VIII.—The Schools of Rome. IX.—Greek Writers and Teachers, not of the Roman School, but contemporary with it. X.—Galen. XI.—Latin Medical Writers subsequent to Galen. XII.—Greek Medical Writers and Medical Institutions subsequent to Galen. XIII.—Laws and Customs of the Roman Empire in relation to the profession.

Dr. Watson informs us in the preface, that he has extended his researches beyond the period of Greek and Roman antiquity, and has collected the materials for a somewhat similar account of the profession among the Arabs of the East and West, among the Byzantine and Latin schools, and the monastic medical institutions of the middle ages. This continuation of his history he designs to present to the Academy on some future occasion.

ART. XV.—*A Popular Hand-book, Sight and Hearing, how Preserved and how Lost.* By J. HENRY CLARK, M.D. New York: C. Scribner, 1856. 12mo. pp. 351.

THIS volume is a judicious compilation of such facts bearing upon the preservation of the organs of sight and hearing, as are calculated to interest and inform the popular reader. As a whole, the work is well adapted to fulfill the intentions of the author—"a popular hand-book" on the subject of which it treats.

PART THIRD.

FOREIGN MEDICAL RETROSPECT.

Conclusions respecting the Minute Anatomy of the Liver. By LIONEL S. BEALE, M.B.—The livers of all vertebrate animals are penetrated in every part by two sets of channels, which alternate with each other. One series, *portal canals*, contains a branch of the portal vein, hepatic artery, and hepatic duct, *interlobular;* and the other series, *hepatic venous canals*, is occupied by a single branch of the hepatic vein *intralobular*.

The vessels ramifying in the portal canals are ultimately distributed in such a manner that they serve to divide the organ into little masses, and thus map out spaces, or *lobules*, each of which contains all the structural elements of the organ, and may be regarded as an elementary liver.

In the intervals between the fissures by which the portal vein, artery, and duct are conducted to the lobule, its capillary vessels, and its secreting structure are continuous with those of adjacent lobules.

The size and form of the lobules differ much in different animals; but their essential structure is the same in all, except in the pig, in the Polar bear, according to Müller, and in the octodon Cummingii (one of the rodents,) according to Hyrtl.

In the pig each lobule is provided with a separate fibrous capsule of its own, and is, therefore, completely isolated from its neighbors. The portal vessels, artery, and duct, run between them, and give off branches to contiguous lobules. In the intervals between the fibrous capsules areolar tissues can frequently be demonstrated.

In all cases, upon a section, the lobule is seen to be bounded externally by branches of the vein, artery, and duct, and in the centre is situated a small branch of the hepatic vein.

In the liver of the human subject, and in that of vertebrate animals generally, with the exceptions above mentioned, the lobules are not separated from each other by any fibrous partition, and there is no areolar tissue or prolongation of Glisson's capsule between them, or in their interior.

The vessels at their entrance into the liver, and as they run for some distance in the larger portal canals, are surrounded with much areolar tissue; but the disposition of this texture about the vessels of the liver is very similar to its arrangement about the vessels distributed to other organs.

The *lobule* itself is composed of a solid capillary network, and of

another network composed of a delicate tubular membrane, in which the liver cells are contained.

These networks mutually intertwine with each other.

The capillary network is directly continuous with the smallest branches of the portal vein, distributed upon the circumference of the lobule on the one hand, and with the smaller intralobular vein arising in its centre upon the other. The vessels of the network converge towards the intralobular vein.

Small branches of the artery open into the venous capillaries of the lobule, near its circumference, and the diameter of the small branches is considerably less than that of the venous capillaries into which they open; the former not more than the 1-4000th of an inch in diameter, the latter about 1-1600th.

In all cases, the blood, enriched with constituents recently absorbed from the intestine, flows with a gradually increasing rapidity from the circumference of the lobule towards its centre, while the bile flows in a precisely opposite direction.

The cell-containing network is directly continuous with the most minute ducts, which ramify at the circumference of the lobule, and it terminates in the centre by loops, which lie close to the intralobular vein.

The liver-cells lie within a tubular network of basement membrane, which separates them from the walls of the capillaries. In many cases, however, these thin membranes cannot be separated, and are, no doubt incorporated with each other.

The cells are not attached to the basement membrane of the tube, but lie in its cavity. Among them free oil globules and granual matter are often found. Usually, there is only room for one row of cells, but sometimes two or more lie across the tube. In the embryo, in young animals, and in fishes, there is room for several rows to lie transversely across the tubes of the cell-containing network.

The cells near the margin of the lobule take the most active part in the formation of the bile. The secretion passes along the tubes in the slight interstices between the cells and the basement membrane, and colored fluid can be forced along these same interstices in a direction the opposite to that in which the bile flows during life, and, therefore, at a great disadvantage. The amount of space is in a great measure determined by the quantity of blood in the vessels, and it is liable to great alteration.

The secreting tubes of the network are many times wider than the narrow thin-walled ducts with which they are directly continuous.

The smallest ducts are lined with a very delicate layer of epithelium, composed of flattened cells of a circular form, contrasting remarkably with the large secreting cells, which are not arranged in any definite manner within the tubes of the network.

The tubes of the cell-containing network are about the 1-1000th of an inch in diameter, or more, but the finest ducts are not more than 1-3000th, and they are often seen even less.

The smallest ducts in some animals branch very freely, and the branches communicate with each other at intervals. In others they

pursue a long course without branching, and in the pig they form an intimate network upon the surface of the lobule. In fatty livers of the pig, however, this ductal network often contains liver cells loaded with oil globules.

As the ducts increase in size they are provided with a fibrous coat, and the epithelium in their interior becomes columnar.

The *interlobular ducts* do not anastomose.

When the fibrous coat reaches a certain degree of thickness, it contains numerous little cavities or *sacculi*, arranged entirely round the tube in the pig and in most animals, but forming two parallel rows, one on either side of the duct, in the human subject.

These little sacculi often communicate with each other in the coats of the duct. The smaller branches of the duct also anastomose frequently either in the coats of the duct or just external to them.

The sacculi appear to serve the purpose of bringing the bile in the thick walled ducts into closer relation with the vessels which surround them, and especially with the branches of the artery which are distributed to their coats.

In the transverse fissures of the human liver and some others, and in the large portal canals, are found some peculiar branches of the duct, *vasa aberrantia*, with numerous sacculia on their walls, which anastomose with each other and formed a next work.

In the same localities in the human subject, and in the gall bladder, a very peculiar arrangement of the vessels occurs. Both arteries and veins form a network, and each branch of the artery is accompanied with two branches of the vein, one on either side of it.

The vertebrate liver is to be regarded as a true gland, its secreting structure consisting of a *formative portion* taking the form of a network, and of a system of very narrow *efferent ducts* directly continuous with it. The secreting cells lie within a delicate tubular network of basement membrane, through the thin walls of which they draw from the blood the materials of their secretion, and they are thus brought into closer relation with, and are more nearly surrounded by the blood than the cells of any other secreting glands.—*Med. Times and Gazette.*

Analysis of twenty-seven cases of disease of the supra-renal capsules by Jonathan Hutchinson, M.D.—Of the twenty-seven cases included in the table, in twelve both supra-renal capsules were proved by post-mortem examination to be destroyed by chronic disease, and in every one of these the change in color of the skin was marked and positive, and the death had been attended by peculiar symptoms of debility. In seven others no post-mortem was obtained, but the kind of cachexia and mode of death had very closely indeed resembled those in which, after death, the theory was confirmed. In one, the patient is still living, the symptoms quite corresponding with those usually met with, and appearing to be irremediable. In one, both organs were affected by recent suppuration, and in this only a yellowish brown tint was noticed, the disease having probably not existed long enough to produce the characteristic pigmentary change of hue. In

four the disease affected but one of the organs, the other remaining healthy, and in these only a slight (but yet positive) degree of the bronzing had been observed. It cannot be necessary to stop to point out that the but partial extent to which the change in tint of the skin had proceeded in the latter cases, so far from constituting any exception to Dr. Addison's opinion, strongly confirms it. Just in proportion to the extent to which the supra-renal organs are structurally disorganized, and to the length of time which they have been so, appears to be the intensity of the cutaneous discoloration. From this it seems fair to argue, that they probably stand to each other as cause and effect, and are not coincident effects of some other cause. Thus, then, of the whole number recorded, (twenty-eight,) we have twenty-five the evidence of which is more or less in favor of the theory under discussion. Let us now glance for a moment at the three seemingly exceptional cases.

In Case No. 26, the patient recovered, and, after lasting somewhat more than a month, the peculiar "dirty-brown tinge" of the skin disappeared. Now, there is every reason for believing, that, in this instance, no pigmentary change had taken place, and that the state described was rather a diffused muddiness than a real bronzing. The reason for believing so is, that the change took place suddenly, and was complete in the course of a day or two. Possibly it was of hepatic origin; at any rate it may be presumed to have had a different cause from that of the change which in all the other cases was very slowly progressive, and requiring several months for its development. In the second exceptional case, a woman who died of cancer had shown no alteration in the color of the skin, and yet malignant deposit was found in both supra-renal bodies. Here, however, a considerable degree of functional vigor may have been retained, since neither organ was wholly involved, and in one, only a few small nodules existed. It is very possible that the portions remaining healthy may have sufficed for the wants of a body which had been reduced to extreme emaciation by long existing disease. Case 21 of the Table supplies us with what is more like a real exception than any other. It is, however, to be remarked, that no mottling of the skin had been observed, only a diffused muddy condition, and that some doubts had been expressed during life as to its being an example of true bronzing. The patient, moreover, had not been seen by the reporter for some months prior to death, and no note was made as to the state of the skin at the date of that event. On account of these circumstances of doubt, we may, perhaps, fairly hold this case as not proving anything, and, if so, the whole of the seeming exceptions are disposed of.

Having regard, then, to the large amount of evidence in support, and the very doubtful character of what little might at first sight seem to range itself on the opposite side, we may perhaps be permitted from this point to assume that the theory is well grounded, and proceed to examine as to the nature of the

Symptoms attending diseases of the supra-renal capsules.—1. *Change of color of the skin.*—The term "bronzing" probably conveys as good an idea of the exact character of the appearance assumed

by the skin in this disease as could well be given. It resembles strikingly the color of a bronzed statue from which the gloss has been rubbed off. Pressure has no effect in causing its diminution. It seems as a rule to commence first in patches with ill-defined borders, on those parts most exposed to the sun and to friction, the neck, the backs of the hands, the fronts of the thighs, the arms, etc. Around the nipple, and in other parts where pigment naturally abounds, it is generally well-marked, while others, possessing little or no pigment originally, as the palms of the hands, the ungual matrices, etc., remain as pale as ever. This tendency to show itself in patches, is strongly in support of the belief that the change is really one of deposit of pigment; which derives further confirmation from the circumstance, that in not a few cases the punctate, or even patchy deposit of black matter was observed in the mucous membrane of the mouth, and in the serous investment of the abdominal viscera. The conjunctiva usually remains pale and pearly, a condition which well distinguishes true bronzing from the various states of jaundice. The changed color of skin, although most important for purposes of diagnosis, is probably of very minor consequence among the other departures from health which attend renal capsular disease.

2. *Debility.*—Next to the bronzing of the integument the extreme and peculiar feebleness manifested appears to be the most striking of the symptoms. Without any evidence of thoracic disease, without any great loss of flesh, the patient becomes liable to faintings, loses energy, is unable to exert either body or mind, and, in short, appears to be on the point of death from sheer weakness. In almost all the cases comprised in the Table this state of things was very well marked. In Cases 14 and 15, however, the loss of strength had not proceeded *pari passu* with the change in the tint of the skin, and appears to have attracted attention only for a few days prior to the fatal event.

3. *Emaciation.*—That there has generally been observed a want of correspondence between the extreme debility and the degree of emaciation coincident with it, seems evident. Several of the patients are described as having remained muscular and fat up to the very last. In almost all, however, there had been some loss of flesh, and in many it had even been considerable. Dr. Addison's observation, that flabbiness of the solids rather than actual wasting is characteristic of the condition, seems true of the majority of cases.

4. *Anaemia.*—In almost all cases, there would seem to have been present great depravation of the colored constituents of the blood, as manifested by the pallor of those parts not involved in the bronzing, the general flabbiness of the muscles, the pearly state of the conjunctiva, etc. In two only (Cases 3 and 13) was the blood examined with the microscope, and in both those it was found to be loaded with white corpuscles. To the impoverished state of the blood is, no doubt, to be referred the breathlessness on exertion, the debility, the feebleness of the heart's action, and perhaps also the irritability of the stomach.

5. *The pulse.*—With a few exceptions, in which it became rapid, the pulse has generally been of but average frequency, and peculiar only in its extreme softness and compressibility.

6. *The tongue.*—It does not appear that any state of the tongue other than that common to most conditions of debility has been observed in connection with this disease.

7. *Dyspepsia.*—In almost all cases prior to death, and in many for protracted periods, great irritability of the stomach was present. In most there was loss of appetite, more or less persistent nausea, and occasional vomiting, with pain and sense of sinking at the epigastrium. In the majority, it would seem that the bowels have been costive rather than otherwise, while, in a few, attacks of diarrhœa had occurred. In several instances the patients had been liable to "biliousness." Much more detailed observations as to the symptoms of indigestion present are desirable.

8. *The urine.*—The urine was testedf or albumen in many of the cases, and in some for sugar; but in no instance was any important departure from its normal constitution observed.

9. *Lumbar pain.*—Aching, more or less severe, in the back or loins, was a symptom present in a considerable proportion of the cases. In two of these there was, however, disease of the vertebræ, by which it might have been occasioned; and the evidence respecting it is not such as to induce us to attach much importance to its signification.

10. *Nervous symptoms, convulsions, etc.*—Symptoms referable to disorder of the cerebro-spinal functions occurred in several of the cases. In three, epileptiform convulsions preceded death. In one, failure of memory, and remarkable change in temper, was observed; and in a second, numbness of the fingers, legs, and the tip of the tongue, had been present. In one, the man had suffered from tic douloureux.

11. *Odor of the body.*—In two cases, both under care at the Brighton Hospital, it was noticed that a peculiarly disagreeable odor was exhaled from the patient's body. In one this was present for a few weeks, and in the other only for a few days prior to death. The phenomenon is not mentioned in the reports of any other case in the series, and Dr. Addison informs us that it was not noticed in any case under his observation.

Such, then, appear to be the more important of the train of symptoms observed in connection with this disease. It is, necessarily, as yet, from the paucity of facts, meagre and inexact, but the general features of the group are, nevertheless, well characterized, and would seem to have been present with tolerable uniformity.

Mode of death.—In only a small proportion of the cases included in our series has the exact mode of death been recorded. In several the death is stated to have been that of exhaustion. In some, a peculiar form of collapse, without obvious cause, preceded it, while, in two or three others, this collapse followed very slight, and usually inefficient, causes, such, for instance, as the action of an aperient dose. In one the collapse was so extreme, and had supervened so suddenly, that poisoning was suspected. In one the patient died of pericarditis with pneumonia; and in another a torpid condition, resembling that of typhus, preceded death. In three, convulsions had been present. Speaking generally, we may say that the phenomena attending death are

those of utter prostration of the vital powers, not unfrequently complicated by disturbance of the nervous functions.

Diagnosis.—The combination of a bronzed state of the skin with great systemic debility may be held indicative of disease of the supra-renal capsules; and the more marked these conditions are, the more positively may the opinion be formed. A differential diagnosis may sometimes be requisite, however, as regards the following diseases:—1. *Jaundice.*—In some states of chronic jaundice the skin may be brown rather than yellow, and great vital depression may exist. Here, however, the conjunctiva and the matrices of the nails would, by their discolored state, prevent the possibility of deception. The tint in jaundice is also a diffused one, and does not occur in patches, as in true bronzing. 2. *Browning from exposure to sun*, etc.—In these, the examination of parts protected by the clothes would generally be sufficient to prevent error. 3. *Pityriasis versicolor.*—The patches of pityriasis versicolor sometimes remarkably resemble those of the bronzed skin. Their limitation to the abdomen and chest, their defined outline, their furfuraceous surface, the slight itching which attends them, their contagious character, and, above all, the microscopic examination of the cuticle, furnish, however, abundant means by which to distinguish between the two. 4. *The diffused brown muddiness of some other cachexiæ.*—The dark areola round the eye, so often seen in states of disordered menstruation, is in rarer cases found coincident with a loss of healthy tint in the skin generally, which assumes a dirty, sallow, brownish appearance. This, in exaggerated instances, might be mistaken for bronzing; and, indeed, we are not sure that Cases 21 and 26 in the series are not examples of this mistake having been committed. It would be premature, indeed, to assert that this state may not have something to do with functional, and perhaps transitory, disorders of the organs, upon structural disease of which the states of more extreme discoloration are found to depend. We have, however, no positive evidence that it does so. In the meantime, it should be borne in mind that in all cases in which bronzing is to be held as positively indicative of diseased capsules there ought to be traces of patching and mottling in some parts; and that in proportion as the tint is equally diffused over the whole body is the diagnosis doubtful.

Prognosis and treatment.—We have as yet no reason for believing that in cases of true bronzing of the skin, the Physician can do other than give the most unfavorable prognosis. No recovery has yet been recorded, nor, indeed, has even temporary improvement under treatment been very marked in any case. After such an avowal it may, perhaps, seem superfluous to speak of treatment, since in our search for principles to guide us in it, we can avail ourselves only of that very delusive light which pathology furnishes. There seems, however, reason for believing, that the morbid changes to which the supra-renal bodies are liable are most of them more or less closely allied to inflammation; and from this fact one might, perhaps, be justified in selecting remedies from the class of drugs known to possess influence over that process. The exhibition of a course of mercury (in very small doses), or the use of the iodide of potassium, the patient's strength being meanwhile

supported by a nutritious but non-stimulating diet, would probably be the most rational practice which could be suggested for a case of bronzed skin. As the change in color is, however, only produced, in all probability, after the organic disease has considerably advanced, there would not, it is to be feared, be much to be hoped for in the way of restoration of function.

Morbid anatomy.—The cases recorded show examples of the following conditions of disease in the supra-renal bodies. A remarkable symmetry of disease appears to have existed in all excepting the cases of cancer.

1. Acute and recent inflammation ending in abscess (Case 17). 2. Atrophy with fibro-calcareous concretions. This condition appears to have been present in seven cases. In some of them cysts existed, and in several a fluid matter resembling pus was contained in the cysts, and bathed the solid fibro-calcareous concretions. These changes probably result from inflammation of a chronic character. The complete disorganization of the viscus is usually effected, and in all the cases recorded both glands were involved (Cases 2, 4, 7, 12, 13, 14, and 16.) 3. The conversion of the viscus into a sort of fibroid structure, with great enlargement and induration. This occurred in Cases 1 and 6, and in both all trace of healthy tissue was lost. 4. The deposit of tubercle. In three instances (Cases 3, 5, and 9), masses of deposit resembling tubercle were observed, and, coincidently, great enlargement of the organ and loss of normal texture. In two the deposit existed in both organs, and in one there was no tubercle in other viscera. It may be doubted whether the deposit is not really more nearly allied to some form of fibrinous effusion, the result of inflammation, than to true tubercle. 5. *Cancer.*—In six (a) cases (Cases 7, 8, 10, and 11), the deposit of cancer has been observed. In all it was secondary to the same disease in other organs. In four it affected but one organ, and in two both were involved. In but one was complete disorganization of both effected.

Theory of the disease.—The observations of Dr. Addison, although they may not as yet have resulted in discovery of the function of the supra-renal bodies, have certainly proved them to possess some very important one. We see their destruction followed in every case by extreme constitutional disorder, loss of strength, depravation of the blood, failure of digestive power, a peculiar tendency to pigmentary deposit, and, finally, by the death of the patient, in spite of all measures for his relief. By whatever morbid change that destruction has been effected, whether cancer, tubercle, or inflammation, the same sequences appear to result, and it would seem that we are fairly authorized in classing them as consequences on it, and not as mere coincident effects of some other cause. Taking these facts in connection with the observations of anatomists as to the very large supply of nerves received by the supra-renal bodies, and the great similarity of

(a) Two of these are not included in the table. For one, see Dr. Addison's work, page 8; and for the other Mr. Sibley. Report, *Medical Times and Gazette*, page 189.

certain of their so-called "gland cells," to those of nerve-ganglia, the conjecture that these viscera are in some way very closely associated with the organic nervous system, seems to have much in its favor. Supposing them to exercise a presiding influence over the functional efficiency of some of the viscera of the abdomen, it is easy to see how fatal lesions of health might ensue on their destruction. Dr. Gull has pointed out the close resemblance between the pineal gland and the supra-renal bodies in minute anatomy and also in liability to calcareous deposit, and the idea seems to well merit attention.—*Medical Times and Gazette.*

On the Various forms of Obstruction of the Bowels. By W. H. Ranking, M.D.—The various forms of intestinal obstruction may be conveniently arranged under the following heads:—

I.—Simple enteritis.

II.—Impaction by fæces, or other solid formations.

III.—Narrowing of the canal from disease within the bowel.

IV.—Pressure of tumors external to the bowel.

V.—Displacement of a portion of the bowel, causing it to twist itself upon another portion.

VI.—Incarceration of a portion of bowel in a loop, formed by false membrane, or adhesions, or in some abnormal opening.

VII.—Invagination or intussusceptio.

1. Simple enteritis, or inflammation of the bowels, is usually, but not always, attended by constipation, which purgatives, if given in ignorance of the true nature of the case, fail to overcome. In this case the obstruction is due to the inability of the inflamed bowel to propel its contents; it allows itself to become distended. The transition from inflamed to healthy bowel is in some of these instances very marked, the upper portion being distended, congested, and even gangrenous, while the lower portion is abruptly pale, empty, and contracted.

2. The usual cause of obstruction from impaction is by the presence of hardened fæces, but in some instances concretions of other kinds take place, and complete obstruction has been known to be caused by a large gall-stone. Dr. Watson relates such a case in his lectures.

3. Narrowing of the bowel from internal disease is the result either of chronic inflammation, with ulceration and interstitial deposit, or of cancerous degeneration of the coats of the bowel. Giles' is an instance of the former disease. The stricture thus induced, may occur in any part of the intestinal tract, but is most commonly found in the rectum, and within reach. This is specially the case with reference to cancer, for of 378 fatal cases from this cause, in 221 the disease was located in the lower bowel.

4. Obstruction from tumors pressing on the bowel from without is comparatively rare, but cases are recorded in which such a result has been induced by large malignant tumors, and by a retroverted uterus.

5. Strangulation from simple twisting of the bowel upon itself is also rare, but several cases are on record. I have myself met with

two marked instances, one of which I related some years ago to the Pathological Society; the other has recently occurred. In both the descending colon had turned over upon itself, producing fatal obstruction. Two cases are also related by Mr. Mackenzie in the *Medical Gazette*, in which the colon was similarly dislocated. Now and then, also, an analogous displacement takes place in the small intestine, in consequence of a preternaturally deep mesentery.

6. The sixth variety of internal strangulation of the bowel is more common. It has occurred to me to see several cases, and an instance you lately witnessed in this Hospital was one. The more common appearances found are a band of false membrane, the result of some former attack of partial peritonitis; an adhesion of the free extremity of the appendix vermiformis, giving rise to a pooze through which the bowel slips; or a rent or congenital fissure in the mesentery or diaphragm.

7. The last form to be mentioned is intussusceptio. In this case one portion of the bowel slips into the portion below it, as may be imitated in the finger of a glove. The portion thus inverted is sometimes of considerable length, and when it gives rise to a tumor perceptible through the abdominal parietes it is called a volvulus.

There is a great difference in the relative frequency of these several causes of intestinal obstruction, as may be seen in an analysis made by Mr. Philips in an admirable paper published in the 31st volume of the *Medico-Chirurgical Transactions.* He has here collected 169 cases, and of these, 69 were instances of invagination or intussusceptio; 60 of strangulation by the constriction of bands, adhesions, and abnormal openings; while 19 only were caused by disease of the coats of the bowel; 11 by impaction of hardened fæces or concretions; and 16 from the pressure of tumors external to the bowel.

Whatever be the cause which offers impediment to defecation, a certain train of symptoms sooner or later ensue, though it must be added they do not follow any regular gradation or combination peculiar to individual lesions; hence the difficulty I have spoken of in deciding upon the exact seat and nature of intestinal obstruction. The first thing that usually attracts attention is pain; this is or is not accompanied by vomiting, and it is found on inquiry that from a certain date there has been no action of the bowels. Day after day passes without relief being obtained; and the symptoms become more severe, the pain more constant, the vomiting more urgent and eventually stercoraceous; the abdomen also becomes more and more distended, the pulse quickens, the countenance becomes haggard, and in fatal cases sooner or later symptoms of collapse ensue, and the patient sinks, retaining his mental faculties to the last. This is a description of an average case of ileus; but great variation is manifested in particular cases in the relative urgency of the several symptoms and in their grouping. I will briefly consider these symptoms *seriatim*, and first of the pain.

This symptom is usually present in greater or less intensity, but in some few it is very unimportant, and cases may prove fatal in which there is neither spontaneous pain, nor great tenderness on pressure of

the abdomen. In other cases it is the first symptom which excites alarm, and occurs often during some exertion, or after an indigestible meal. In such instances it is not uncommonly found that a portion of bowel has become strangulated, and the sudden pain would seem to indicate the precise moment in which the bowel has become imprisoned. In other cases there is little or no pain for some days, but it soon declares itself in connection with distension of the abdomen, and marks the occurrence and progress of the enteritis, which seldom fails to add to the fatal tendency of the mechanical obstruction. Towards the close of life, when gangrene ensues, the pain, as in idiopathic peritoneal inflammation, often quickly and entirely subsides.

The *constipation* is, in all cases of genuine obstruction of the bowels, complete; or, if any fæcal matter passes, it is merely that contained in the bowel below the constricted point. In some cases of intussusceptio, bloody mucus passes, which, in children especially, will materially assist in forming a differential diagnosis.

The *vomiting* is a symptom subject to much variety. I have recently had a case under my care in which the obstruction was of fourteen days' duration, with immense distension, but vomiting did not once occur. This case proved fatal without the patient once vomiting. The obstruction was in the sigmoid flexure. For the most part, however, vomiting is a very distressing symptom, and adds materially to the difficulties of medicinal treatment. At first it is simply the ejection of the ordinary contents of the stomach, but at some variable intervals it becomes fæcal.

The *abdominal distension* likewise varies both in degree and period of occurrence. In some cases, where the obstruction is high up, as in the duodenum, there is little or no distension; on the contrary the abdomen becomes flat or even retracted. Generally a tympanitic condition soon declares itself, and may proceed to an enormous extent, so that distended coils of intestine become perceptible to the naked eye.

The condition of the urine is thought by many, and especially by Dr. Barlow, to give important evidence as to the site of the impediment. Where it is copious it is supposed to indicate obstruction of the lower end of the tube, and the reverse when it is scanty in quantity. Further inquiries are, however, requisite to establish this as a trustworthy symptom. The state of the circulation in intestinal obstruction fluctuates. The pulse may be unaffected at first, but rarely fails to sympathize with the gravity of the disease, in a rise of frequency and subsequent loss of power.—*Medical Times and Gazette.*

On Encephalocele, with a Tabular Analysis of seventy-five cases. By John Z. Laurence, Esq.—In a paper read before the Royal Medical and Chirurgical Society, in June last, the author remarked, that congenital hernia of the brain was a rare malformation, and that it was a still rarer circumstance for the subject of it to live for any length of time, especially when the protrusion was large. In the present case, the tumor equaled in size the child's head, yet life was prolonged for 144 days, and in that respect it formed a more remarkable case than

any which the author had met with in his researches for his table. The mother was healthy, and had previously given birth to five healthy children. The labor was natural; the child a female. At birth the the tumor was not quite so large as the head. When first seen by Mr. Laurence, two months and a half after its birth, it presented a conical tumor as large as its head, apparently originating from the occiput and nucha, and measuring five inches and a quarter in length and three and a half from side to side. The walls of the tumor were very thin; it fluctuated freely to the touch, was very transparent, but there was no pulsation perceptible. The child had a vacant, idiotic aspect; was to all appearance blind, but was startled by any sudden noise; the limbs were not paralyzed; it was found dead in bed beside its mother. On examination after death, the tumor was found to contain the entire cerebellum and a portion of the cerebrum; these parts had been protruded through an opening in the occipital bone, which was oval in form, continuous with the foramen magnum, and measured (including this latter) two inches and a quarter from before backwards, and one inch and a quarter across. The paper was accompanied with a valuable analysis of seventy-five cases of this malformation, divided into three tables—the first, containing an analysis of fifty-three cases of encephalocele occurring in the occipital region; the second, an analysis of seventeen cases occurring in the frontal region; the third, an analysis of five cases occurring in the parietal and temporal regions. The dates of the cases range from 1677 to 1853.—*Assoc. Med. Jour.*

SURGERY.

Deligation of the Abdominal Aorta for Aneurism of the Common Iliac Artery.—An opportunity was afforded on the 21st inst., of seeing that most unusual and very formidable surgical operation, deligation of the abdominal aorta for large iliac aneurism at the right side; it is, perhaps, the only instance of such a fearful alternative in this disease being carried out in London hospital practice since the introduction of chloroform. The case has occurred in St. Thomas' Hospital, and the operation was brilliantly performed by Mr. South, assisted by his colleagues, Mr. Simon, Mr. Solly, Mr. Le Gros Clark, and Mr. Green, before a vast assemblage of Guy's and St. Thomas' students. The poor young man, the subject of the disease, has been for some weeks under treatment at St. Thomas'. The original history of the disease was very obscure. He had been exposed to very hard work, but did not recollect any start or strain, or injury of any kind in the region of the groin; in short, the history of the origin of the aneurism was as difficult to trace as these cases usually are.

Since his admission to the hospital we observed the tumor had increased extensively, so that, previous to the operation on Saturday, the 21st inst., it had grown to a size of enormous magnitude; the limb on the right side was completely without feeling from pressure exerted on the nerves accompanying the artery; the aneurismal sac, however, had evidently grown thick, although it had enlarged, and the peculiar blowing sounds of aneurism were to be heard when the stethoscope was

applied externally. The operation, as a last resource, naturally attracted much attention in St. Thomas'; as since Sir Astley Cooper performed it (or rather an operation like it in the mesial line) in 1817, it has not been seen in London practice, though Mr. James, of Exeter, ligatured the aorta much in the same way as Sir Astley in the second case in which he had previously employed the distal operation for inguinal aneurism. Murray, at the Cape of Good Hope, also ventured on a similiar operation, but without success; the only other case having been that of Monteiro, at Rio Janeiro, the most successful operation of all, the patient having lived ten days, when he died of secondary hæmorrhage, Sir Astley Cooper's patient surviving only forty hours.

The abdominal aorta, it need scarcely be observed, divides opposite the fourth lumbar vertebra, giving off the two common iliac arteries; this bifurcation, occasionally occurring a little higher or a little lower, as the case may be, and on the left of the median line, the common iliac, the seat of the disease in the present case, is, in the normal condition, about two inches and a half in length, a little longer on the right side than the left. And when we say that an enormous pulsating tumor of this artery at the right side, the size of a cocoa-nut, or very large orange, was plainly felt, and even seen bulging in the right inguinal region, it is easy to conceive the serious gravity of the case. Some long and anxious consultations were accordingly held by Mr. South and his colleagues last week, the balance of opinion tending towards giving the poor man the benefit of the operation. The left common iliac, it will be remembered, is somewhat different from the right, and forms a more obtuse angle with the end of the aorta, and is, of course, crossed by the colon or rectum, while the *right* common iliac is crossed by the ureter of that side, is in relation with the common iliac veins and psoas magnus externally, and is in relation in front with the delicate portion of small intestine (ileum) which is so well known as lying in this region; in the left side, where Mr. South made his first incision some five or six inches long, the sigmoid flexure of the colon was plainly seen bending backward to form the rectum, and when the hand was introduced into the abdominal cavity, the aneurismal sac and aorta above it were plainly felt.

The first part of the operation, after the patient was placed under the effect of chloroform, consisted in a long incision carried from the crest of ilium at the left side (that opposite the tumor) as far as the cartilaginous border of the thorax at the tenth rib, as it is easier to reach the aorta at this side; the abdominal muscles were next successively divided with much care, till at last the transversalis was reached, which was also cut through; one or two unimportant muscular branches of large arteries requiring to be ligatured; the peritoneum was finally arrived at, and the wound now fairly laid open. The intestine seemed quite healthy, and by opening the wound, the aneurism was plainly discerned filling up the right groin. In this operation, as Mr. Erichsen well observes:—"There are not only all the dangers attendant upon the ligature of arteries of the first magnitude, but also the risk of producing fatal peritonitis, whether the abdomen be cut through, or the vessels sought for by stripping up the peritoneum from the

iliac fossa." This was too evident to Mr. South not to be neglected, so the operation was done with much care and expedition. A new needle of ingenious form had been constructed by Mr. Milliken, which Mr. South now armed with a ligature, and passed under the aorta, about two lines above the bifurcation, trusting, as Sir Astley, to the collateral circulation of the inferior mesenteric artery for the maintenance of the vitality of the parts thus suddenly deprived of blood. The admirable ease with which the operation may be performed under the effects of chloroform was generally observed, and is perhaps the chief feature in recommending its being repeated.—*Assoc. Med. Jour.*

On Osteo-Myelitis after Amputations.—By CHARLES KIDD, M.D. There is a purely medical or hygienic aspect under which the late surgical disasters in the Crimea may be regarded, that is entirely too much neglected just at present in England; yet the results of the late campaign are full of novelty, and very full of interesting instruction for hospital surgeons and practitioners generally through the country. Indeed, the old familiar reports now made public from the pathological department of the English army by Dr. Lyons, as well as various returns made to the Emperor of the French by the pathologists at Pera and Marseilles, have opened up new and hitherto unbroken paths of research.

A purely medical disease of no small interest, osteo-myelitis, or inflammation of a bad character of the medulla of the long bones, has been much dwelt on recently by the French *physicians* with the army in the Crimea, as common both in their hospitals and ours; so much so that disarticulations at the joints, so as not to expose the delicate tissue of the medulla and the internal lining membrane of the medullary cavity, have been very generally substituted for amputations.

We have now the statistical results of the amputations and other cases in the late Crimean war:—108 per thousand died from surgical wounds in the Crimea; 391 per thousand from bad hygienic arrangements, scurvy, and cold; while, at Scutari, 575 deaths in a thousand were from medical diseases with which the "civil element" was unable to cope, such as dysentery, pneumonia, osteo-myelitis, etc.; while 175 deaths in a thousand were from fever. The vast preponderance of medical disease here must strike the most superficial reader.

The total of killed and wounded of our army in the Crimea up to September, 1855, was 13,800 men, in three nearly equal divisions; viz., from *medical* diseases in the trenches, assaults, and battles. The proportion of killed to wounded, curiously enough, is the same as at Waterloo—193 to 1,000; so that our surgery has not advanced on the field of battle.

We can compare these statistics in London better than any where else, as we have now a mass of reports from the French army of a most superior and valuable kind.

One cause of danger from amputations has been hitherto overlooked. A large number of the wounded at the battle of the Alma, and even a larger proportion of the wounded at the frightful affair of Inkermann,

were observed afterwards to sink from a disease which, though well known to practical surgeons in hospitals of late years, has been yet not often described; viz., inflammation of the medullary canal and medulla (osteo-myelitis) of the long bones, due to meteorological influences in a great measure, also to too many amputations, and too much distrust of the unaided powers of Nature herself. This form of disease, observed in all the hospitals at Constantinople from the beginning of October to the end of December, was remarkable for coming on very like pyæmia, and for being, if possible, more dependent on meteorological influence than even that terribly fatal and unwelcome complication of wounds. In a word, the dangers of pyæmia and osteo-myelitis, from want of pure air in hospitals, especially in winter, to "burn off," in Liebig's phraseology, the pyogenic elements in the blood, the moment they make their first appearance, has been too much overlooked.

This disease was known amongst the French surgeons especially, by a sort of hernia of the medulla of the long bones, on the face of the stump, in shape of a mushroom. The periosteum, all around where the saw had cut, became bare, and the bone was protruded. Wherever this mushroom appearance of the end of the stump was observed (I have occasionally seen it in London hospitals also), death was almost invariably certain; so much so, indeed, as to cause the surgeons at Pera to be at their wits' ends what to do for its prevention or cure. The disease was dreaded as a sort of plague especially when the wind blew from a particular quarter, so that it came at length to be a question whether amputations ought to be done at all; while, in many cases, the still safer alternative of disarticulation (heterodox as such an operation may appear) was adopted with advantage, till disarticulations, especially of the knee, in place of amputations, came to be quite a new feature in Crimean surgery.

The more general causes of the high rate of mortality at Pera—the chief causes of the ill results of several operations—are traced by the French to the nervous prostration of the men, the continual mental tension and want of sleep among the soldiers in the trenches, want of their ordinary good food, as well as to the blank in a Frenchman's existence in the Crimea, produced by the absence of his accustomed bottle of wine (*vin ordinaire*), so necessary, it is thought, and not perhaps without reason, as supplying the want of fluid in the system caused by frequent hæmorrhages. As a calorific agent in the economy, wine is also useful where many causes otherwise conspire to depress the general nervous system, thus preventing the proper purification of the blood, as described by Liebig. Various animal miasms in the vicinity of the camp, from the crowding of the men, were added to these evils. The dreadful winterishness of the season in the Crimea before the taking of the Malakoff, want of tents, etc., all conspire to make the hygienic and sanitary condition of the French troops, if possible, worse than that of our own. At Scutari, in our hospitals, one-fourth of the sick were boys under 20, mere "gristle," scorbutic, and subject to all kinds of adynamic or hyposthenic diseases. The Russians were more tolerant of disease and operations.

The hospitals at Pera received the worst cases; and some idea of the

crowding may be conceived from the fact that sometimes two hundred men of a morning were sent away half cured, to make room for others newly arrived. Large numbers of the amputated were sent away to France half-healed, as the sea air and journey to Marseilles was thought better than exposure at Constantinople to the unavoidable miasms of the south wind and the evils of osteo-myelitis, with the other evils so graphically described within the last few weeks to the French Emperor in the government returns. Scurvy, hospital gangrene, ordinary sphacelus, secondary hæmorrhages after operations, osteo-myelitis, diarrhœa, dysentery, nay, cholera, typhus, and a state of adynamia allied to typhus, have all, each in its turn, been met with by the French physicians as obstacles to the healing process in stumps. Some other cases, it must be confessed, were lost by bad surgery, such as not tying both ends of a wounded artery, but allowing secondary hæmorrhage from the distal end to take place, as now recognized by such first-rate surgeons as Mr. Erichsen, Mr. Cock, Mr. John Adams, Mr. Paget, Mr. Simon, etc.

In reflecting on the terrible mortality from *secondary* amputations, especially those of the thigh and knee, the French surgeons now again believe it would be better not to operate at all, and, in fact, that the words "secondary amputation" ought to be banished from military surgery. I said this in 1848, as the experience of MM. Roux, Velpeau, Baudens, etc., at that time; but I have often been put down by statistics. There are few things that can be so abused as statistics. I have never forgotten an observation I heard in Brussels, where I met M. Quetelet, the Dr. Farr of those countries. Statistics merely show the direction in which the truth lies, as a sign-post points out a specific road or turnpike-gate. We should not strive to corroborate a preconceived crotchet or theory by statistics, for, if we do, we are most likely to succeed. The dictum of the first Napoleon is, of course, very well known—that he would prove anything in the world by statistics. Our statistics, to be of use, must be as extensive as possible. If the sign-post turns to four roads, we must take care how, to please our preconceived crochet, we turn the sign-post itself about our own way. Statistics of half a dozen cases of amputation in London hospitals may show that *primary* amputations of the shoulder-joint or above the knee, from a crush in machinery or under an omnibus, are more dangerous than *secondary* amputations of the foot or fingers for diseased bone: and we may build up a law on that, and turn round the sign-post, as we have very recently being doing in statistics from the Baltic; but we are nevertheless wrong. As a matter of wide and enlarged comparison, we may refer to Fenwick's 8423 amputations, about half in civil hospitals, and about half in military practice; the death rate in each being about 1 in 3·15. This will furnish a good starting point, though I believe it is a little—a very little—too high.

Next, as to primary operations, compared to this standard. At Pera, by the French, it was found that primary amputations were far more successful than secondary. Many of the latter cases occurred amongst the Russian prisoners, tall healthy men, but who refused to be operated on except by their own surgeon, Pirogoff. They nearly

all died when operated on as secondary operations; in fact, they only allowed amputation as a *dernier ressort* before they died. Of 527 wounded, taking all kinds of cases in the French ambulances and at Pera, 216 died. It is curious, and not without instruction, to compare these figures with 584 similarly treated at the passage of the Pyrenees, in Mr. Guthrie's book, of which 300 died, or more than half; or a death rate, as Fenwick would say, of 5·14 deaths in the latter, 4·10 in the former; and both above the proper average.

Let us compare this serious mortality with the 310 *primary* amputations, in which there were only forty-five deaths. The staff-surgeons, Mr. Guthrie then said, "kept their primary amputations with them in bivouac, and their success is remarkable; that of the fourth division has no parallel"—for the simple reason, that they were all primary operations, as now well understood in the French and Sardinian armies.

The French go on to state that operations in the Crimea on the upper extremities, as we should have, *à priori*, expected, were far more successful and healed sooner than operations on the thigh and lower extremities. They agree with English surgeons, that no patient ought to die, in fact, of amputations of the forearm or arm, except, of course, from pyæmia, osteo-myelitis of the humerus, or some such complication; and that, if possible, amputations are to be avoided. Amputations of the forearm were more rare among the French than amputations of the arm on this account, as the last was only done from pressing necessity. Amputations of the thigh and leg were equal in numbers, so this is convenient for statistical results, as equals added to equals must simplify the rule thus educed, as the final result must be equal.

But now we come on a curious fact, due to the prevalence of this new disease—osteo-myelitis. Disarticulations of joints, necessitated by gunshot wounds, have been less formidable as to death rate than the old method of amputations. Of 183 disarticulations, ranging through all the joints from the hip-joint to the wrist, there were only seventy-two deaths. (In three cases, the hip-joint was disarticulated!) Resections of joints also have offered the most unexpected good results, as, of twenty-six cases at Pera (including seven of the ankle, four of the head of the humerus, and one of the clavicle), there were only nine deaths, and these from medical and hygienic causes, irrespective of the operation itself. In another department of the French army, there were fourteen resections of the head of the humerus alone, almost every one successful; and of forty cases of resection of the elbow, given by Stromeyer, thirty-two recovered with useful limbs; in seventeen, there was more or less flexibility of the elbow; in thirteen, anchylosis. Several of these men were useful as carpenters, as they could use their shoulders in a hinge-joint fashion, such as planing wood, cutting with a hatchet or chisel, etc., which they manifestly could not do if they had lost the arm by previous surgery of last century. Resection of the elbow was everywhere amongst the French less dangerous than amputation of the humerus, from the prevalence of this disease, osteo-myelitis.

It is very interesting to find Dr. Menzies, and, in London, such an

eminent surgeon as Mr. Skey, in a clinical address this month on amputations, now adopting the opinions of the surgeons of 1848, that I then published. Such is the congruousness of truth and fact, in spite of the anomalies of statistics. Dr. Menzies, like many surgeons after great battles, gives an opinion that one will find in all our medical libraries amongst old books, that more in the Crimea might have been left to conservative surgery and the *vis medicatrix*, or, as M. Velpeau expressed it in 1848, "Plus je viellis dans le pratique *moins* je suis partisan de l'amputation."—*Association Med. Jour.*

Value of the Trephine in Molecular Necrosis of Long Bones.—Mr. Erichsen operated, on the 18th ult., in a case of what he termed molecular necrosis of the centre of the tibia. The articular ends of the long bones, according to this eminent surgeon, are peculiarly liable to this affection; the end of the tibia very commonly; that of the humerus more rarely, but next in order. Chronic osteitis, as we have seen in the practice of Mr. Stanley, is also another form of disease, as well as cysts in bones, which occasionally call for the use of the trephine.

The case was that of W. P., a man apparently in good health otherwise, but who had suffered severely from pain in his knee. The limb affected was rather wasted and shrunken than swelled. About five years ago, he stated, he had an acute attack of what was most probably synovitis of the knee joint, for which he was treated at Margate, and subsequently in some of the London hospitals. He had issues on each side of the knee, and the joint became quite anchylosed. For the last three years previous to admission to the hospital, he has suffered much from severe pain at the inner side of the head of the tibia, with nocturnal exacerbations of this agony, the pain being of a gnawing, throbbing character: yet, one could detect no enlargement whatever of the bone, or obvious cause for so much suffering. One tender spot alone could be traced in the bone, but no enlargement or periosteal thickening.

Mr. Erichsen decided on the 18th ult., to trephine the tibia; and the man having been placed accordingly under the influence of chloroform, an incision was made over the painful part of the bone. The crown of the trephine was next applied, and sank readily into the cancellous structure, as though the shell of compact tissue had been thinned or eroded. It was very doubtful if pus came away; one of the assistants observed what he thought were indistinct traces of such a deposit. Some dark soft spongy bone was, however, next gouged away, the wound stuffed with little bits of lint, and cold lotions applied, to moderate the inflammatory action which might arise in such close contiguity of the knee joint itself. The patient has done well, and has lost all his pain, while healthy granulations have sprung up. Mr. Erichsen believes that tubercular deposits may occur in bone, a very marked instance of which we conceive we saw recently under the care of Mr. Lawrence, at St. Bartholomew's. A tuberculous vomica, in point of fact, may burst into a joint like that of the knee.—*Assoc. Med. Jour.*

Observations on Foreign Bodies in the Ear. By JOSEPH TOYNBEE, Esq.—Foreign bodies of various kinds are frequently introduced into the outer meatus. Among those which have fallen under my own notice may be named beads, slate pencil, leaves, a shell, a pea, sealing-wax, a percussion-cap, a pen, a piece of paper, seeds of grass, tobacco, wool, cotton wool, human hairs, bacon, lint, camel's hair pencil, and camel's hair. When a body is introduced into the meatus by design, it is either done by a child in play, or by an adult for the purpose of medical treatment, or the alleviation of an itching of the tube. When a patient is suspected of having a foreign body in the ear, the first step of the surgeon is to make a careful inspection of the tube with the speculum and the lamp, or in sunlight, with the view of ascertaining whether there is really anything present. In a great number of cases, having explored the whole of the meatus and seen the membrana tympani, he will be able to assure the patient or the friends that there is no foreign body present. For want of this precaution lives have been destroyed in the attempt to extract from the ear supposititious foreign bodies which were never present. Medical men are not generally aware with what impunity a foreign body may be lodged in the meatus. It is not uncommon to find a mass of hard cerumen in contact with the whole of the meatus and with the outer surface of the membrana tympani, without causing any pain or inflammation; I have frequently removed other substances, viz., beads, pebbles, etc., which had been either in contact with the membrana tympani or in its immediate vicinity without their having caused any pain. Nor is this remarkable when we remember that the meatus and outer surface of the membrana tympani are a continuation of the outer skin, and, like it, covered with a layer of epidermis. The meatus and membrana tympani are extremely sensitive when touched by hard or rough substances, but smooth and soft bodies may be gently pressed against them without causing pain. Thus the artificial membrana tympani, made of vulcanized india-rubber, is often placed against the outer surface of a perforated membrana tympani, without causing any unpleasant sensation.

When a foreign body has been detected in the external meatus, it should be removed as soon as possible. The mode of doing this depends upon its nature. As a general rule, the syringe and warm water are quite sufficient to remove all rounded solid bodies. I have succeeded in getting out beads and other hard substances, which appeared to be impacted in the meatus, by means of the syringe only, although considerable time is sometimes required. At times it may be useful to move the body slightly with the point of a probe, a little bent downwards, so as to give greater facility for the passage of the water beyond it; for the mode in which the syringe acts is to force the warm water beyond the foreign body, and so gradually to impel it outwards. Mr. Wilde and other writers recommend the use of the curette, spatula, or forceps in the extraction of foreign bodies from the meatus. I have never been obliged to use any of these instruments, and, if possible, they should be avoided. Dieffenbach, who advocated the use of a curved director or curette, must have met with cases showing their danger, for

he says, "Should violent bleeding supervene, and there be no likelihood of completing the operation at one sitting, cold and afterwards warm applications are to be resorted to, so as to prevent suppuration." It is almost impossible to pass a curette between the foreign body and the meatus without forcing the former inwards, and it is very apt to be pressed *forcibly* against the membrana tympani and cause inflammation. Cases are sometimes met with in which the most lamentable results have followed attempts at removing foreign bodies by instruments. Death has not unfrequently occurred; and, where the life of the patient has been spared, the ear has been destroyed, and the *portio dura nerve* paralyzed.

Supposing that a patient applies for relief, who has much inflammation and tumefaction of the meatus, consequent, perhaps, upon some attempts made to remove the body by instruments, I think the better course is to apply leeches and fomentations, under the use of which the symptoms will subside, when the extraction may be attempted by the syringe.

In some cases the presence of a foreign body in the meatus gives rise to a cough, or even to vomiting. This appears to be caused by irritation of the auricular branch of the pneumogastric nerve. A patient under my care, with a portion of dead bone in the meatus, suffered from a cough, which yielded to no treatment, but disappeared as soon as the bone was removed. In a notice of Professor Romberg's work in the *British and Foreign Medical Review*, Vol. XVII., it is stated that Arnold met with a case of chronic vomiting in a child, which long resisted all curative means, but which was cured by removing a bean from each of the child's ears.

There are substances of a different character to those I have alluded to, which are often introduced into the ear, and which are not so easily removable by the syringe. These are cotton wool, tobacco, leaves, paper, and similar soft materials, which expand in the tube, and perfectly fill it. If the syringe fails to remove these bodies, they can be seized with the lever-ring forceps, with which they can be easily withdrawn. Insects sometimes enter the meatus, and are apt to cause more irritation than the presence of solid bodies. If they touch the membrana tympani they cause extreme sensitiveness, and spasmodic contraction of the tensor tympani muscle. The use of the syringe, or, if that is not at hand, a little warm water poured into the ear, affords instant relief. Foreign bodies which press upon the outer surface of the membrana tympani are apt to force inwards the chain of bones, and to press the stapes towards the vestibule, causing the peculiarly distressing symptoms of giddiness and confusion in the head which not uncommonly attend upon an accumulation of cerumen. These are wholly removed when the foreign body is extracted.—*Medical Times and Gazette.*

On the Specific Treatment of Vaginal Cystocele.—One of a class of cases of very practical importance, for which St. Mary's Hospital has been for some time remarkable, was operated on by Mr. Baker

Brown, on the 16th instant—a case of vaginal cystocele, caused by relaxation of the parts from ruptured perinæum. The condition of prolapse of the vagina, as met in hospitals, occurs under three very distressing forms, according as it affects the anterior or posterior wall, or the entire circumference of the canal; the yielding of the anterior parietes, as the case operated on the 16th instant, draws down the bladder; and when the poor woman was placed on the operating table, one saw the collapsed bladder hanging through the external opening of the vulva, giving a painful but vivid idea of the condition of things when the bladder became filled. The ruptured perinæum by removing the natural support of the pelvic viscera, seems sufficient cause for the accident. Nor is this all; for, as was well observed by Mr. Baker Brown to his class, the relaxation of the vagina in front causes an alteration in the position of the bladder itself and its meatus. so as to cause something very like constant retention of urine; this again leading to imperfect action of this viscus, and excessive accumulation, by the weight of which the vagina is stretched even more, and thrust forwards and downwards. Thus one accident, by remaining uncured, causes several others to follow in its train, rendering the life of the woman one scene of wretchedness and misery.

As might be expected, patients such as this woman, though not anxious to tell their complaints, are in the habit of speaking of dragging sensations in the lower part of the abdomen, pain in walking, and horrible dysuria. In some instances, the woman is obliged to push back the viscus into its normal position before she can evacuate the urine. The bladder also becomes a focus of irritation, inside and outside, very singular in itself. The extruded part is liable to injury, and becomes the seat of ulceration; while a very distressing irritability is also set up in the interior, arising from the fact of a small portion of urine always remaining in the cavity, which becomes decomposed, giving rise to much fœtid and ropy mucus.

This is the state of things which Mr. Baker Brown proposes to cure; and we do not say too much when we affirm that we know no operation that has met such opposition, and none which has proved to be such a blessing to these poor patients. In milder cases of this disease, and occurring in young females, the treatment is usually confined to frequent catheterism, the recumbent posture, astringent injections, tonics internally, and attention to keep the bladder free from accumulations of urine, by a bent metallic catheter, with an elastic bag attached, and a sponge tent in the vagina to uphold the bladder. Various means of producing contraction, it need hardly be said, have also been tried, such as the actual cautery, or removing a triangular slip of mucous membrane, the base towards the orifice of the vagina, and then bringing the edges together by suture.

We observed, on the 16th instant, that Mr. I. B. Brown, after the usual horse-shoe section of the vaginal mucous membrane, had recourse to the still more formidable proceeding of removing a flap of mucous membrane from the thick central portion of the protruded bladder itself, on its vaginal aspect—a new adaptation of plastic surgery, of a delicate, if not dangerous character.

We have seen this operation of Mr. Baker Brown's now so often, that it is only a matter of duty to say that his success with his cases has been most remarkable, almost unexpected. One sees poor women every month, from every part of the country, many pronounced incurable, whose lives have been a burden to themselves and all about them, either with cystocele or rectocele, prolapse of the uterus of the very worst kind, or some other grave malady, yet who return home to the country quite cured, the strong muscular arch of the perinæum quite renewed, and all the pelvic organs restored to their normal position.

The object of the operation on the 16th was contraction of the calibre of the vagina generally. By the first step, now so well known, the contraction of the vagina *laterally* is secured, while the posterior horse-shoe incision completed the operation *posteriorly*. We noticed two deep sutures, which are usually removed on the third day, the interrupted sutures on the fifth day; a bent catheter being secured in the bladder, attached to an India-rubber bag. Much care is observed to keep the woman under the effects of opium, so that the parts shall not be disturbed by the bowels acting.

If we dwell only on the salient features of this operation, it is to direct the attention of our provincial brethren more to these cases; or, if the appliances are not allowed by the Poor-Law Guardians, then to send the cases to Mr. I. Baker Brown.—*Assoc. Med. Jour.*

Cure of Itch in Half an Hour.—Dr. E. Smith, at a meeting of the London Medical Society, called attention to an article in the *Gazette Hebdomadaire*, by Dr. Bourguignon, in which is a confirmation of the value of the treatment of itch, in Belgium, by sulphur, combined with lime, in a liquid form. The remedy is prepared by boiling one part of quick lime with two parts of sublimed sulphur, in ten parts of water, until the two former are perfectly united. During the boiling it must be constantly stirred with a piece of wood, and, when the sulphur and lime have combined, the fluid is to be decanted and kept in a well stoppered bottle. A pint of the liquid is sufficient for the cure of several cases. It is sufficient to wash the body well with warm water, and then to rub the liquid into the skin for half an hour. As the fluid evaporates, a layer of sulphur is left upon the skin. During the half hour the acarus is killed, and the patient is cured. It is only needful then to wash the body well, and to use clean clothes. In Belgium, the treatment is introduced by first rubbing the body for half an hour with black soap; but this does not appear to be necessary. The only essential act is that of the careful application of the fluid sulphur. The lime is of no importance in the treatment, except to render the sulphur soluble, and such would probably be the case if potass or soda were employed. The chief point in the plan thus employed, which is an improvement upon the mode of application of sulphur in substance with lard, is the more ready absorption of the remedy, and consequently the more certain and quick destruction of the insect, by using sulphur in a fluid form. In so disgusting a disease it must be of great moment to be able to cure it in half an hour.—*Ibid.*

PART FOURTH.

AMERICAN MEDICAL RETROSPECT.

PRACTICAL MEDICINE.

On the Treatment of Yellow Fever during the epidemic at Norfolk, (Va.) in the Summer of 1855. By A. B. WILLIMAN, M.D.—In the *Charleston Medical Journal* for May last, we find an interesting account of the yellow fever epidemic in Norfolk. We select the following from Dr. W.'s, concluding observations on this disease.—Those remedies which were employed in the Norfolk fever appear to have been designed either for the purpose of cutting short the disease in its incipient stage, or on the other hand with a view towards combating symptoms as they successively arose. A candid opinion in regard to both these procedures must pronounce the latter most safe, since it is now generally conceded that we possess no heroic or specific remedies against yellow fever. The practice of salivation was indeed still relied on; but its advocates are now few, and I think that the experience of 1855 tends altogether against the future administration of calomel, except for its simple cathartic effects; employed otherwise in Norfolk, the results were generally bad, and increased tendency to hæmorrhage, local and general, constantly followed mercurial ptyalism.

The combination of *calomel and quinine* in large doses, was a remedy in constant use by those who believed some similarity of nature to exist between yellow fever and the intermittent variety. The testimony upon its efficacy seemed to me very variable; and the few instances recorded of success, happened in persons of strong constitutions, who were not afflicted with the disease in its worst form, *Quinine alone*, given after the febrile paroxysm had passed, or was nearly reduced, afforded perhaps more favorable indications. I knew of its decided benefit when administered as an injection, to a patient much exhausted by restlessness and continued vomiting. Physicians from New Orleans, who had larger acquaintance with the whole routine of quinine practice, used this drug but sparingly in Norfolk: and my own experience satisfies me in stating, that moderate doses at a late stage of the fever were alone admissible.

If any particular method of treatment deserves notice for its success, it was one eminently mild. Free but gentle movement of the bowels soon after the accession of fever, was generally produced by a few grains of calomel, either alone or in combination with blue mass. The form of pills was perhaps most employed from its ready passage into the stomach, and greater freedom from nauseating effects. Where the stomach

showed no marked signs of irritability, castor oil was very commonly given, and amongst the blacks it constituted almost the only medicine during the early stages of fever. Its action, in all cases which fell under my immediate treatment, was prompt and efficacious, as well as safe when administered before the first twelve hours of illness had elapsed. In cases where vomiting persisted, there was free resort to saline cathartics, especially such as possessed effervescing qualities. After the administration of mercurials, and where necessity appeared to demand it, free purgation was often produced by any of the neutral salts. For my own purposes, I commonly employed sulphate of magnesia in a pleasant draught of lemonade, to which a few drops of nitric acid had been added in order to disguise any unpleasant taste. This old and apparently trifling remedy, from its easy administration in small doses, and active property, seemed to answer every purpose in keeping up a continued revulsive action upon the bowels. As the poison of yellow fever makes its first attack apparently upon the brain and great nervous centres, these parts should be the objects of early medication. With this view, it was my intention after reaching Norfolk, to test fairly the use of the cold bath upon the entire body. The want of means, and the class of my patients, however, prevented almost entirely any full employment of this remedy, and I was forced to a trial of cold effusions upon the head and upper parts of the body. Results of the most encouraging and beneficial kind attended the application, which was easy, and without much inconvenience to the patient. I frequently employed, with my own hand, some vessel containing two or three gallons of water, and poured it from a hight of two feet upon the exposed parts. Relief to the agonizing headache and parched surface of the chest and limbs was prompt, while frequently an increased moisture began to appear over the whole surface, attended by greater repose and diminished fever. So far as my knowledge extends, all attempts at internal local medication upon the stomach invariably failed. The muriated tinct. of iron, once vaunted for its peculiar styptic virtues in arresting black vomit, was in our practice at Norfolk only productive of increased nausea; nor can I mention a single one of the large class of antacid remedies which gave more than momentary relief. Counter-irritation at an early stage of fever was generally made over the epigastrium, and with such results as gave to this remedy considerable value in controlling excessive vomiting. Frictions along the whole course of the spine with powerful stimulants, as turpentine, chloroform, etc., together with cupping upon the back of the neck, were also resorted to when there was apparent tendency towards the black matter formation. But at most, these means only delayed the dreaded symptom; and when any arrest occurred in the progress of black vomit, it seemed to be rather attributable to the direct powers of nature. In a few cases, where I employed strong opiate enemata, more repose was induced than by any other method of treatment which had been adopted. Local, and not general blood-letting, was the plan pursued at Norfolk; and it is probable that in the early stages of fever, depletion direct from the circulation, together with emetics, might have been employed oftener with benefit. As rapid prostration, in the late epidemic, very generally happened towards the period of crisis, there

seemed obvious indication for supporting the system against fatal debility, and hence stimulants were added to some light nutritious fluid. Nothing seemed to me so easily borne as thin chicken water containing a little salt, and frequently the sick partook of it when fatigued with cold or acidulated drinks. During the actual stages of black vomit, a variety of means were used for some supposed stimulant and tonic virtues which they seem to possess; but I am not aware that the administration of brandy, champagne, or porter added at all to our knowledge previously entertained respecting alcoholic medicines in yellow fever.

On reference to my case book I find that during the epidemic one hundred and twenty persons came under my personal treatment. Of this number *eighty* were *whites*, and *forty* blacks and mulattoes. The white cases show a loss of *eighteen*, the colored races only *two*. One of the latter was a woman æt. 60, of nearly pure African blood, whose case presented a fever lasting between three and four days, accompanied with nausea and vomiting. No other peculiarity was seen in the discharges from the stomach except their thin and watery appearance, but free from discolored particles. The tongue remained soft and only slightly furred, while the jaundice in the eyes was quite distinct; skin was relaxed and cold three days before death; and the urine, although of a jaundiced color, was considerable in quantity. The other case was in the person of a mulatto female, aged 50, of nervous temperament. Fever in the onset violent, rapid pulse, with excessive restlessness and anxiety. Jaundice was perceptible on the third day, and in the progress of disease extended itself over the whole body. Urine of dark orange color on the fourth day, together with black vomit. Delirium supervened, and death with convulsions ensued between the seventh and eighth day.

The following instances are recoveries from different stages of black vomit:

Mrs. N., a lady of 70 years of age, was attacked by fever of insidious form, but accompanied by constant nausea and vomiting. On the fourth and fifth day discoloration of skin quite distinct, and widely spread; delirium, with great prostration; discharges from the stomach thin, bluish-white, and covered with floating brown particles. She was treated by opiate injections, and although the fever assumed a typhoid form, recovery came about slowly.

Child of Mr. B., aged 8 years, dark florid complexion. Fever was intense, attended with deep suffusion of face and epistaxis on the third day; delirium constant, and alternations of great stupor, except at moments of vomiting. The matter vomited from fourth to sixth day was distinctly thin, colorless, and contained floating brown particles in abundance. Seventh day discharges from the bowels set in, and were almost entirely of grumous blood. The presence of bile increased as the intestinal hæmorrhage diminished, and by degrees fæcal matter could be perceived. This case was accompanied by extensive jaundice and marked changes in the urinary secretion, but convalescence went on regularly to a perfect restoration of health.

W. J., a youth of fourteen years old. Violent fever, and much cerebral torpor, together with epistaxis in the beginning. On the fifth day extensive jaundice appeared, and hæmorrhage set in. Nausea and vomiting had been constant; the discharges from the stomach were thin, without a trace of bile, and slightly specked by brown matter. Convalescence was slow, and the jaundice disappeared very gradually.

Daughter of Mrs. S., aged 7 years. Attack of fever was violent, with deep red suffusion over the cheeks and breast; parched surface, and vomiting came on with the febrile movement. On the third day, when the evacuations of the stomach were thin and free from bile, characteristic brown particles appeared, while jaundice extended itself fully over the body. Recovery was regular, after subsidence of fever, which was complete on the fourth day. The peculiar character of the vomit in three of the cases above mentioned was sufficiently distinct to attract immediate attention on the part of those who acted as nurses, and was at once removed by them from the sight of each patient.

Suppression of urine was observed by me in a large proportion of my male patients. Although a symptom most commonly found in persons of advanced life, it was often present in childhood, but at late stages of illness. In those cases where I observed early diminution in the discharge of urine, or its complete cessation, fever of the most intense grade with great heat and redness over the upper extremities was always present. The tongue was, in the beginning of such cases, covered by a heavy brown fur, which soon became dry, rough, and stained, as if by tobacco juice, particularly at the root. The cases of suppressed urine were also indicated by an early and most obstinate torpor of the bowels, which yielded to none, even of the most powerful cathartic medicines.

I find upon my list four cases in which the reappearance of a menstrual flow was discovered. In three instances the discharge occurred respectively on the third, fifth, and seventh days, where a return to health happened. In the fourth, which terminated fatally, black vomit was already present before the catamenia returned, and the restoration of the uterine function seemed like a critical hæmorrhage which often supervenes in the advanced stages of yellow fever. So far as I could discover, the urinary secretion went on in my female patients far more regularly, and with less danger from suppression, than amongst the male class. A black girl, who was severely attacked by the prevailing fever at a period immediately before the menstrual return, continued with partial suppression of urine for two days, which resisted every local application. At length the stomach appeared to take on some sympathetic action, and a most alarming hæmorrhage ensued. The quantity of blood discharged in vomiting amounted to several quarts, and it was followed by prompt reduction of fever, and complete restoration to health.

In the instances of five or six sufferers, from intermittent fever, I

saw a formidable character of the prevalent disease, strongly resembling the worst features of typhus gravior. The hæmorrhage from the nose, gums, and tongue, came on very soon after each attack, and was so offensive that it was difficult to remain near the sick person. Black vomit in the present cases took on its coffee-ground appearance, without running through gradual changes, and putrefied rapidly after exposure to the atmosphere. Jaundice was constant in all the individuals, and I found it quite impossible to rouse them from a profound coma which supervened upon the other symptoms.

The following details regarding three cases of pregnancy, contain some points of interest:

Mrs. B., the mother of two children, and in very great destitution, was in her eighth month of pregnancy when I attended her for an attack of yellow fever. Abortion was much threatened, but passed off in the course of disease, leaving behind it, however, a very serious disturbance in the functions of the stomach. Vomiting of blood, to great excess, continued daily during a month, and when labor came on it was attended by severe bleeding, but without harm to the child or mother, both of whom are now doing well.

Mrs. C., a young Irish woman, a stranger, and pregnant with her first child. She was visited by me, and found to be suffering with severe fever, with excessive irritability of stomach, and bilious vomiting. Towards the third day labor pains began to show themselves during the period of jaundice, before strength was far reduced. Hæmorrhage of most alarming kind seized upon the stomach, and delivery of a dead child, seven months old, took place. The uterine flooding was out of all proportion to the discharge from the stomach, and the case rapidly assumed the darkest shade of orange color, which continued until death. Patches as deeply stained as mahogany appeared over the forehead and cheeks before and after dissolution.

Mrs. S., of delicate form, and the mother of several children, was attacked by fever when in the last stage of pregnancy. I was present at the time of labor, and the skin was beginning to assume a yellow color. Delivery came about in the usual way, and a fine, healthy infant was born. The condition of the mother continued to improve, but the child, in 48 hours after birth, and during the night, grew ill, and died with every symptom of yellow fever upon the body.

* * * * The class who became chief sufferers were eminently poor, and they, under an existing state of evils, could find aid only in those services which were rendered by the physician. Regular attention to the sick, or any system of nursing, was not at hand; and often the medical assistant performed these duties, and administered his own remedies. I have made repeated attempts to ascertain the total number of cases which received medical treatment in Norfolk, but, hitherto, without a definite result. The population, at the close of the epidemic, was stated by the Mayor of this place at 6,000 persons; and since nearly all suffered from an attack, whilst the ascertained mortality reaches to 2,000, a loss of one-third must have happened. During the month of September, my inquiries amongst our Southern practitioners, and also from resident physicians, afforded much more favorable returns

than the above, and the loss varied from one-fourth to one-sixth upon a large number of patients of all classes.

Glycerine as a substitute for Cod-liver Oil in Phthisis. By H. WARDNER, M.D., of Chicago, Ill.—In its internal use, glycerine has great advantage over cod-liver oil, on account of its blandness, and favoring instead of destroying the digestion, and nauseating the patient. In children, it is easy of administration, on account of its sweet and agreeable taste. In the latter part of October, 1855, by permission of Dr. N. S. Davis, I used it at the Mercy Hospital in the proportion of four parts to one of the syr. of the iodide of iron, in the case of a man about 40 years of age, who had been using the cod-liver oil, but was obliged to discontinue it, on account of its nauseating and irritating effects on the stomach. This man, at the time, was much emaciated, much troubled with coughing, and expectorating daily nearly a pint of thick, tenacious mucus, freely mixed with tubercular matter in a granular form. The infra-clavicular space was considerably fallen in, and all the symptoms and signs plainly evinced quite an advanced stage of the disease. He had been under treatment for several weeks, just previous, for chronic diarrhœa, which was not entirely cured. In about a week after commencing the use of this prescription, the cough and expectoration ceased, and the patient was much improved generally. He has continued its use up to the present time, Jan. 10, 1856; has regained his natural fullness and rotundity, and is fast regaining his strength.

Dr. Davis subsequently used the same remedy in a case of incipient tuberculosis, with equally satisfactory results. Dr. De Laskie Miller recently prescribed in a more advanced stage of the disease, with the most happy effects. In conclusion, I believe it a most valuable addition to the list of curative agents.—*N. W. Med. and Surg. Jour.*

Sulphate of Bebeerine in Intermittent Fever. By ROBERT NEILSON, M.D.—The adulteration of quinine and its increasing scarcity, strongly demand the development of some other article of supply, if possible, in its place. Occasionally an agent possessing some merit is brought forward, and with little trial, and still less accuracy observed, is discarded or placed under ban. Such has been in part the history of the sulphate of bebeerine; mankind being ever prone to search for precedent, rather than endure the patient toil to discover things new and untried, prefer to take the views of the old world than to call forth the energies of our native intellect.

I have experimented with several indigenous plants, but have found them inferior to the sulphates of quinine and bebeerine. The latter is inferior to the former in general application, but superior in some special conditions of the system. In cases of intermittent, prone to relapses, Fowler's solution is not more effective than bebeerine; or if diarrhœa attends them, its astringency and anti-periodicity are happily combined to arrest it. We do not intend, while now in its infancy, to place it side by side with quinine, but trust that

whatever of merit it may possess, it will be submitted to the closest investigation.

It is my opinion, that one reason why it has not been more approvingly noticed, is because its therapeutical application is not well understood. To succeed with any medicine it requires a nice adaptation of its peculiar power to the diseased condition. No skillful physician would think of giving opium in active inflammation of the brain, yet after depletion it may be highly useful. Thus, while the bebeerine possess strong anti-periodic power, it is also astringent and slightly stimulant, I am satisfied from reason and actual experiment, that it cannot be exhibited successfully where inflammation or a tendency to it obtains. Nor can it be given during the paroxysm of fever without increasing vascular action; also, if exhibited in this stage it produces emesis, or nausea, to which it is more prone than quinine. It is more effective when used in the distinct remission or intermissions of fevers, and hardly admissible in any other stage. It sometimes has an emetic effect, best obviated by combining with it some one of the tinctures of opium. Being soluble in water, I am accustomed to exhibit it in a solution of twenty grains to the ounce of water.

During the Summer and Autumn of the years 1854–5, I used the bebeerine occasionally in intermittents when relapsing, after quinine seemed to have lost its action, and generally with success. Pleased as far as I tried it, I determined to test its relative value as compared with other anti-periodics. Accordingly, twenty cases were treated with it, and the usual preparatory adjuvants,—seventeen of whom were cured, one (a case of tertian,) ran into the quotidian type, cured by quinine; the two remaining cases being threatened with gastritis, the remedy was abandoned, and they were cured in the usual way; but I am satisfied the bad symptoms were occasioned by over-eating. The case of quotidian type was a perfect failure under apparently favorable circumstances for its use.—*Southern Med. and Surg. Jour.*

On the Treatment of Pustule Maligne. By D. W. Wainwright, M.D.—There have been various modifications of treatment for malignant pustule recommended by different surgeons. Some advise the cautery alone. Others the extirpation of the tumor followed by the cautery; either the actual or potential. But in cases that I have observed, the disease has yielded so readily to an incision alone, that I believe no one is justified in using the cautery until he has seen the effect of a simple incision. The advantage of the incision is that it will generally be sufficient, and its use does not cause the deformity that must follow the application of the cautery. If, after the incision is made, the disease continues to extend, then apply the cautery, either the actual or potential: the actual is preferable, it having a greater control over the malady. The incision should be graduated to the size of the tumor; if that is not large, a single, if large, a crucial incision will be necessary. Care should be taken to cut not only entirely through the tumor itself, but also to include somewhat of the healthy structure, beneath, and at both sides. The relief, after the incision, is very great; the patient

being almost instantly freed from those shooting pains, that are so distressing.

(In dividing the tumor, it will appear as if the knife passed through an honey-comb, and, upon examining the surfaces, you will perceive them to be partitioned off into cells, each cell filled with matter, and not seeming to communicate.) After the operation, a poultice should be applied; one made of yeast or carrots. It should be renewed occasionally, and kept on for twenty-four hours. Then the wound may be dressed with an ointment made of balsam of Peru, mixed with unguentum altheæ or simple cerate. The wound should be allowed to remain with such a dressing until granulations form, when its sides should be brought together by adhesive straps or sutures. (When the pustule is situated upon the lip the hare-lip suture may be required.)

The intestines, whenever necessary, should be cleared by a mild cathartic. Drastic cathartics are to be avoided, as the fever that accompanies this malady always assumes a typhoid type. The patient should be sustained by stimulants and nourishing diet, and as soon as he recovers from the depressing effect upon the mind, which is a marked symptom in this disease, tonics, and the continuance of a generous diet, are of great service in restoring him to his previous state of health.

Especial care should be paid to the symptoms of constitutional disturbance, as in that the great danger lies; the system succumbing, in an almost incredibly short period, to what does not at first appear a dangerous complaint. If practiced with energy, this course of treatment will be to the surgeon, in its prompt and happy action upon the disease, most gratifying.—*Inaugural Essay, etc.*

Analysis of 123 *Urinary Calculi in the Warren Museum* (Boston.) By James C. White, M.D.—We find the following interesting report of an analysis of the urinary calculi in the Warren Museum in a late number of the *Boston Med. and Surg. Jour.*

Two facts detract much from the interest of these calculi, one of which is that they are of foreign growth; the other, that no personal history is connected with any one specimen. They were sent from London to Harvard College by Dr. John Nichols, A.D. 1800, and until within a few years have been lying in the dust and mould of Holden Chapel, in Cambridge. We may infer their English original, and the large proportion of uric acid which enters into their composition gives strength to such inference. In other respects the collection is a very fine one. Very many of the specimens are large, and most of the peculiarities of formation find illustration among them. In their analysis I have used the microscope instead of the test tube almost wholly, by which means very minute proportions of any substance may easily be detected, and no room be left for doubt. Without its use, the recognition of many ingredients would be impossible; and I believe the results attained in their examination before the present knowledge of microscopic chemistry, are to be received with much distrust.

By examining the following table, you will see I have not in all cases

pretended to make a separate examination of each layer of a calculus or of its nucleus. Such a course would have been impracticable on many accounts, for a week might well be spent over a single specimen if such a course were adopted, even if the successive layers were sufficiently well marked to permit it, and in many cases they are not; to say nothing of the necessary mutilation of the specimen. In each case the entire surface of a section through the centre has been carefully and equably scraped; by which means we not only obtain all the constituent parts, but their relative proportions also. The general results, however, will only be tabulated here.

It will be seen that uric acid and the urates predominate in this collection, as in that of the Hunterian and Guy's. In the catalogue of the former it appears that out of 649, the whole number, 212 consist of pure uric acid, or 1 in 3; of the urates, that of ammonia alone is recognized, while the corresponding salts of lime, soda, potassa and magnesia are passed by. I believe we may fairly question the accuracy of this analysis, and conclude that many among the so-called uric acid calculi would be found to contain the various urates.

It will be an interesting point to be decided hereafter, whether the introduction of our Cochituate water will produce any change in the character of the calculi of the next generation; the more interesting, from the fact that the whole city is supplied from one and the same source, whereas in London the sources are numerous. Lithotrity, however, interferes sadly with our investigations in this matter, for we can form no fair estimate of the structure of a stone from the fragments passed by the urethra, and after the first operation, the diathesis may wholly change. It is partly on this account that the recent examinations of calculi shows such different results from the older and European collections made when lithotomy was in vogue. In so great a degree is the phosphatic diathesis owing to local irritation, that I doubt that if we should ever find it succeeding a layer of uric acid or any urate, unless some inflammation were created by instruments or injections having been passed into the bladder. The propriety of frequently sounding for stone, or of attempting to crush any large calculus, may therefore be called in question, for such practice may easily induce the deposition of phosphates, which after the first crushing may go on with such rapidity as to form about the debris masses larger than the original stone, or a thick crust upon the lacerated surface of the bladder.

Calculi consisting of uric acid,	10
" " " and urate of ammonia,	20
" " " " " " and urate of soda,	10
" " " urates of ammon., soda, potass., lime and magnesia	6
" " " and oxalate of lime,	7
" " " " " and urates.	20
" " " " " and phosphates and urates,	12
" " " " " " " "	12
" " " " " " " "	5
" " " " " " " "	6
" " " " " "	2
" " " " " and phosphates,	3
" " " carbonate of lime and "	10
	123

Calculi containing uric acid,			97
"	"	urate of ammonia,	75
"	"	" soda,	27
"	"	" magnesia,	13
"	"	" lime,	12
"	"	" potassa,	9
"	"	oxalate of lime,	49
"	"	phosphate of lime,	38
"	"	diphosphate of lime,	1
"	"	carbonate of lime,	13
"	"	phosphate of ammonia and magnesia,	21

On the Reduction of Long Standing Dislocations. By GEORGE C. BLACKMAN, M.D., Professor of Surgery in Ohio Medical College.—About the 10th of July, I succeeded in reducing by manipulation, without the pulleys, a dislocation into the axilla of eighty days' standing. The reduction was accomplished in a very few minutes, under the influence of chloroform and ether, and the next morning the patient left for the country, in a comfortable condition. Since that I have heard no tidings from him. Encouraged by the result in this case, another patient, himself a physician, a tall athletic man, and about fifty years of age, decided to submit to the same manipulation, although his arm had been dislocated for about sixteen weeks. The dislocation was downward and inward, and about the tenth week an unsuccessful attempt, by another surgeon had been made with the pulleys, to which the force of six men was applied for two and a half hours. The patient being under the influence of chloroform and ether, aided by Drs. Wood, Fries, Cary, Graham, and Kaufman, I commenced my manipulations adducting, rotating, abducting, and elevating the arm. These efforts had been made for about ten minutes, and the least possible violence employed, when a tumefaction appeared in the pectoral region, which in a few minutes attained considerable size. Supposing that the axillary artery was ruptured, as no pulse could be felt at the wrist, a ligature was immediately applied to the vessel at the upper part of its course. The operation was performed about 10 o'clock, A.M., and compression of the pectoral region, made by means of a sponge and broad roller. On removing this the next morning, the tumefaction had nearly disappeared. The patient continued comfortable, and about nine days after the application of the ligature, I was compelled to leave the city on a professional visit to Indiana. I left on Friday afternoon and returned on Monday morning, at which time I learned that my patient had died on Sunday morning from hæmorrhage at the seat of ligature. Two physicians, his most intimate friends, lodged in the same house with him, but before they reached his bedside the quantity of blood lost was so great that he sank exhausted in about two hours from the first and *only* attack of hæmorrhage. Previous to my departure, for Indiana, I had suggested to the physicians in charge the importance of having compressed sponge at hand, to be used in any emergency of the kind, but this was not used by the attendant; instead of applying pressure instantaneously, he went in search of the physicians, who at that early hour in the morning, were in bed. The time thus lost, unquestionably led to the fatal catastrophe.

I might refer you to numerous instances of success in the reduction of old dislocations—from two to six months standing which have occurred since the days of Wiseman, but I propose to notice only the accidents by which some of these attempts have occasionally been followed. One of the earliest recorded, so far as we have been able to learn is the case reported by Desault, in the *Journal de Chirurg.*, t. 4, p. 301.

During the efforts of this surgeon to reduce an old dislocation, suddenly a considerable "*tumeur aerienne*" appeared below the clavicle, which Desault attributed to the "*degagement de l'air amasse entre les cellules rompucs du tissue cellulaire!*" In a few days this tumor entirely subsided, under the influence of "*astringens et une compression methodique.*" Whether it was the result of a disengagement of air from the lacerated cells of the cellular membrane, as supposed by Desault, or of a rupture of blood vessels, we leave the reader to determine.

It is somewhat singular that Desault should have met with two cases of this extraordinary phenomenon. Pelletan's explanation, in our opinion, throws some light on this subject. In an attempt to reduce a luxation of four months standing, the same kind of "*tumeur aerienne*" appeared. It was opened, and the hæmorrhage from the torn artery was fatal. (*Clin. Chirurg.*, t. ii., p. 95.)

Malgaigne states that he is acquainted but with a single instance of an "emphyseme veritable" following a reduction, and that is the one reported by Flaubert, in his *Mem. sur. plus cas de luxations dans lesquels les efforts pour la reduction ont ete suivis d'accidents graves;* which appeared in the *Repertoire d' anat, et de phys.*, 1827. The patient, a female, æt. 70, screamed violently during the operation, and Malgaigne is disposed to believe that the emphysema was independent of the luxation, or the reduction. (*Fraite des Tract. et des Luxations*, tom. ii., p. 147).

Malgaigne, himself, attempted reduction in a case of sixty-eight days' standing, but was forced to discontinue his efforts in consequence of the sudden appearance of a tumefaction in the axilla, and on the shoulder. Ice was applied and in the course of a few hours the swelling was arrested, and by the twenty-second day, the blood, which he thinks came from ruptured muscular branches, was completely absorbed. (*Op. cet.* page 159.)

A case occurred to Flaubert, in which, besides the tumefaction, the pulse could not be felt at the wrist. The hand was cold, insensible and immovable. The next day, however, the pulse returned to the wrist, and in the course of twenty-six days the effused blood was absorbed. Froriep lost a patient from a rupture of the axillary vein, which proved fatal in an hour and a half after the operation. (Op. cit. p. 151.) The reader may find, in the comprehensive treatise of Malgaigne, details of cases in which the axillary artery was ruptured. We pass over those observed by Verduc, Petit, Platner, Delpech, and that referred to by Sir Charles Bell, in his Operative Surgery. The late Dr. John C. Warren tied the subclavian to arrest the progress of an enormous aneurismal tumor in the axilla, the result of the reduction of a recent dislocation, and of supposed pressure of the operator's

boot. In this instance the coats of the artery were so contused that sloughing took place during a fit of coughing, five days after the accident. (*Amer. Jour. Med. Sciences*, vol. xi. N. S., 1846.) In 1824, M. Loudet lost a patient at the hospital in Rouen. The dislocation was of only eleven days standing, and was complicated with a fracture of the margin of the glenoid cavity, as in the two fatal cases which occurred in the practice of Prof. Gibson, of Philadelphia. The latter cases are too familiar to every surgical student to require particular mention in this place. Prof. Gibson, in connection with the report of the above cases, gives briefly the details of a fatal operation by David, of Rouen. The luxation had existed several months, and great force was employed in the reduction. This resulted in an inflammation, mortification, and death. Some years since, Lisfranc attempted the reduction in a case of four months standing. He succeeded; but on visiting the patient an hour afterwards he was found dead. His death was attributed to cerebral congestion, as the autopsy showed the axillary artery, veins, and nerves uninjured. (Vid. *Bul. de la Soc. de Chirurg. de Paris*, Tom. Prem., p. 718.) In the same volume MM. Lenoir and Larrey, refer to cases in which they had met with lesion of the brachial plexus, giving rise to paralysis, and yet these were recent cases, and the reduction was most readily accomplished. But I will not multiply cases of this kind; those already related will doubtless suffice, in the minds of many, to answer the question—At what period of time after a dislocation of the shoulder, is an attempt at reduction justifiable? When Prof. Gibson lost his first patient, he wrote that "should a case similar in external appearance to that of James Scofield again occur, I shall feel justified in adopting a similar course." (*Gibson's Surgery*, vol. 1, p. 334, 5th ed.) When he had lost his second patient (John Langton,) he expressed his views as follows: "The conclusions which I am now prepared to draw, are directly the reverse of what I have stated in some of the foregoing pages; I am now disposed to condemn, in the most unqualified terms, all attempts at restoration of *ancient* luxations of the humerus and other bones—except in cases where the patient is remarkably thin and debilitated, and where there has been little or no inflammation at the time or subsequent to the displacement." (*Op. Cit.*, p. 351.) At a meeting of the *Societe de Chirurgie* of Paris, July 3, 1859, M. Maisonneuve reported a case in which, after M. Velpeau had failed, he succeeded in reducing a luxation of the shoulder of twelve weeks standing, and elated with this triumph over the veteran of La Charite, he asserts that he is satisfied there are but few cases in which, with the aid of chloroform, we may not succeed. "*Quelles resistances y a-t-il a vaincre ici, en effet.*" He asks, "*Il n'y a presque pas d'engrenage; les muscles sont neutralises par le chloroforme; il ne reste donc que des adherences fibreuses: l'on pouria presque toujours les surnontee les rompre.*"—(*Bul. de Soc. de Chir.* t. i. p. 716.) But these fibrous adhesions are not the only obstacles to overcome, where the tissues surrounding the head of the bone have become consolidated by inflammation, the axillary vessels and nerves must be in danger of laceration. Perhaps, however, as M. Maisonneuve suggests, this accident may be

avoided by *extensions preparatoires*," as in the attempts to restore contracted limbs to their natural shape.—*Western Lancet.*

Statistics of Ligature of the Arteria Innominata. By PAUL F. EVE, M.D., Prof. of Surgery in University of Nashville.—In a paper read before the Tennessee State Medical Society and published in the *Nashville Jour. of Med. and Surg.* Dr. Eve has done good service to the profession. We extract the following:

STATISTICS OF ATTEMPTS TO OBLITERATE THE BRACHIO-CEPHALIC.

Surgeon.	Year.	Age.	Sex.	Result and Cause of Death.
1. Mott,	1818	57	Male	Death on the 26th day from repeated hæmorrhage.
2. Graefe,	1822	adult	"	Death on 65th day, hæmorrhage.
3. Norman,	1824	"		Death.
4. Arendt,	1826			Death on the 8th day from inflammation of sac, pleura, and lung.
5. Hall,	1830	"	"	Death on the 6th day from dyspnœa and hæmorrhage.
6. Bland,	1832	31	"	Death on the 18th day from repeated hæmorrhage.
7. Bujalski,	before 1840			Death on the 2nd or 3rd day.
8. Bujalski,	"			Death on the 2nd or 3rd day.
9. Lizars,	1836	30	"	Death on the 21st day from repeated hæmorrhage.
10. Dupuytren,				
11. Hutin,	1842	adult	"	Death the 11th hour; antecedent hæmorrhage and exhaustion.
12. Porter,	1831			No ligature, patient recovered.
13. Kuhl,	1836	43		Death on 3rd day of hæmorrhage.
14. Liston,	1838	adult	Male	Death on the 13th day.
15. Key,	1844	"	Female	Failed, yet patient died of pulmonary distress and exhaustion.
16. Hoffmann,	about 1840			Died.

"In reality the ligature was tied around the innominata in only ten of these cases, viz., Mott's, Graefe's, Norman's, Arendt's, Bland's, Bujalski's, Bujalski's, Lizar's, Dupuytren's, and Hutin's. In Hall's, the ligature was passed through artery; in Kuhl's and Liston's the carotid and subclavian were tied just beyond the bifurcation; and in Porter's, Key's, and Hoffman's, the operation was abandoned and no ligature employed.

In every case where a ligature was applied either to the brachio-cephalic, or near its division into right subclavian and right carotid, *i. e.*, thirteen cases, death has followed; even in two where the operation was abandoned, there was a fatal result in one; and in the sixteen cases one alone recovered, and in that no ligature was used, the vessel having been simply exposed; the cure in this case was spontaneous, and in all probability entirely independent of the operation.

In this collection, embracing sixteen cases in which the ligature was attempted to the arteria innominata, I have given, as far as I could obtain it, the history of each one. Other similar operations may have been made, but these are all that are found on record.

In conclusion, after this exposition, let me ask, who will again venture *to tie the brachio-cephalic artery ?*"

Removal of the entire Clavicle for Caries. By GEORGE C. BLACKMAN, M.D., Prof. of Surgery in Ohio Med. Coll.—On the first of the present month (May), in consultation with his family physicain, Dr. Wm. Wood, I saw Mr. J. B., æt. 42, who had suffered from caries of the clavicle for more than a year. The first fistulous opening formed near the junction of the outer with the inner third of the bone, and just within this point it seemed excavated and expanded to a considerable extent. From its inferior margin there was a sharp and ragged bony projection which proved to be a true exostosis. About an inch external to the sterno-clavicular articulation there was a second fistulous opening through which a considerable quantity of matter was daily discharged. The adjacent integuments were of an unhealthy aspect, presenting every indication of extensive disease at the articulation.

Assisted by Drs. Wood, Gray, and my pupil, Mr. Jones, I proceeded at once to the removal of the bone. The patient having been brought under the influence of a mixture of chloroform and ether. I commenced my incision about the middle of the sternum, and carried it to the external fistulous opening. Great care was taken in isolating the bone from its important connections, and it was divided with a saw at the point above indicated, with the hope that the external third might be saved. On a more careful examination of the latter, however, it was found to be in an unsound condition, and was removed to its junction with the acromion. The inter-articular cartilage at the sterno-clavicular articulation was softened, and a considerable portion of it had disappeared. The internal third of the bone was disorganized beyond the power of reparation or of removal, unassisted by art. The operation being completed, a little lint was introduced, the integuments brought together, and the whole neatly dressed by Dr. Wood, under whose skillful attentions the patient was enabled in ten days to attend to his business. Three weeks have now elapsed since the operation, and not an unpleasant symptom has appeared; nor are there any indications of the extension of the malady to the sternum.—*Western Lancet.*

Cæsarian Section—Successful to both Mother and Child.—By CHARLES S. MILLS, M.D., of Va. Reported by Dr. M'Gaw, Editor *Virginia Med. Jour.*—The subject of this operation is about twenty-three years old, and not more than three feet nine inches in hight. The upper portion of the body is very well developed, the arrest of growth being confined entirely to the pelvis and lower limbs. The probable necessity for the operation had led the family physician to propose the induction of premature delivery, but his advice was not followed, and on arriving at full term, the extreme contraction of the pelvis prevented any doubt as to the true course to be pursued.

The operation, which was performed under the influence of chloroform, and at night, presents no features of peculiar interest. The

happy effects of chloroform were exemplified in a marked degree, the viscera remaining perfectly quiet, not interfering as they usually do, in the progress of the operation. The case went on safely, without any symptoms likely to produce alarm, until crural phlebitis appeared about the eighteenth day after the operation, which, however, yielded to active treatment, and the woman, by the 7th of June, had entirely convalesced. During this period the infant had never required the interference of the physician.

It is with much pleasure that we record the entire success of this operation, the first to be found in the annals of Virginia surgery; and we will close these remarks with a short sketch of the various Cæsarian sections performed in this State, which we have been able at this time to collect, and their results.

Dr. HERNDON of Fredericksburg, in the year 1846, performed this operation for the purpose of taking away a dead fœtus from the womb. This case is remarkable for the fact, that on making the abdominal section, the peritonæum was found closely adherent to the uterus, and hence the operation was rendered remarkably simple, as the integrity of the abdominal cavity proper was not disturbed. The dead fœtus was extracted, and the woman *recovered.* This case is reported in the April No. 1846 of the *American Journal of Medical Sciences.*

Dr. SMITH of Northampton county, Virginia, performed the operation of hysterotomy in or near the town of Eastville some time during the year 1851. The particulars of this case will be reported in a future number of this journal. It resulted in the death of the mother, but the *child lived.*

The case of Dr. MILLS is the next in order, securing the safety of both mother and child; and a few weeks subsequent to the date of this operation, Dr. EDWARD DREW of this city was compelled to perform the Cæsarian section on the body of a negro dwarf whose pelvis was so extremely contracted as to prevent the possibility of a natural delivery. This case also will appear in our columns. It resulted in the death of the mother, the life of the child being saved.

Thus, in four operations, we have the recovery of the mother in two instances, and three children saved—the fourth (Dr. Herndon's case) having been dead for some time. We think it probable, however, that in a few months we will be able to collect the statistics of other operations of like character, which have been performed in Virginia in times gone by, and have, with characteristic neglect, been permitted to remain unrecorded.

The success of this operation in the hands of American surgeons has been remarkably great. Churchill, in his Tables of the Results of British and American Practice, gives *five* American operations, including Dr. William Gibson's famous case, on whom hysterotomy was performed *twice successfully.* These five cases resulted in the recovery of every mother and the safety of four children. But in forty-seven British operations, we observe a loss of thirty-eight mothers!

The statistics of the European operations are more encouraging. In all Catholic countries, we find a greater inclination to the performance of this terrible operation at an early period, which may be attributed

to the desire to preserve the life of the unbaptized infant. Indeed, there are cases of women who have submitted to the Cæsarian section, and afterwards have borne children per vias naturales. In the dictionaire of Fabre we find two hundred and ninety-three cases collected by Velpeau and Hœbeke. Of these, one hundred and thirty-four were saved. Thus, on the continent two-fifths of the women have recovered, and about three-fourths of the children saved.— *Virginia Med. Jour.*

EDITORIAL.

Yellow Fever in New York.—The appearance of this disease in the immediate vicinity of our city, and the apprehensions felt by many, even of the profession, that it may visit us in an epidemic form, have led us to devote a few pages in this number to a sketch of the history of its existence and progress among us in former years, with the addition of some of the leading facts connected with its appearance and progress up to this time during the present year, which, we trust, will not be without present interest, while it may also prove convenient for future reference. For nearly the whole of the facts connected with the subject previous to the present year, we are indebted to Prof. A. Clark, who has kindly allowed us free access to his notes collected for another purpose, a verbal abstract of which he gave at the last meeting of our Academy of Medicine, and which, instead of reporting under the head of "Proceedings" of that body, we have—for the sake of greater accuracy and more detail than were possible for him at that time, under the circumstances of the case, without notice and from mere recollection of his notes—thrown together under the present form.

For the greater part of the facts and statistics of the present year, we take pleasure in acknowledging our indebtedness to our friend, Dr. E. Harris, the efficient physician of the Marine Hospital at Staten Island, who has, on former occasions, laid the readers of the Journal under obligations by his valuable contributions. The facts respecting the occurrence and fatality of the disease in the south part of Brooklyn and its neighborhood, are taken from a letter on the subject to the Commissioners of the Board of Health of our city, by Dr. A. B. Whiting, former Health Officer of Quarantine, published in our daily papers.

The first appearance of the yellow fever in the British Colonies was, according to Sir Gilbert Blane, at Barbadoes, in 1647; its first appearance on the American continent, at Boston, 1693. In 1699 it appeared in Charleston, S. C., and in Philadelphia. Its first appearance in New York, so far as we know, was in 1702, when a fatal disease prevailed, which is recorded under the name of "the great sickness," and which was probably yellow fever, although there is no substantial authority for thus naming it. Five hundred died up to Sept. 30 of that year, and seventy more during the succeeding week. The population of the city was then probably about 6,000 or 7,000. The mortality was so great, that a fast was proclaimed by the Governor in consequence of it.

Its next appearance in this city was in 1741 and 1742; but the mortality was inconsiderable during these years. According to Mr. C. D. Colden, in a paper written in 1743, it appeared chiefly in parts

of the town which were built on swampy ground, from which the water could not be easily drained, and there was a filthy smell from the slips.

It appeared the next time in, 1747, but the mortality was then slight; and not again until 1791, when, according to Dr. Seaman, it prevailed to a considerable extent in a part of Water Street, and in the neighborhood of Peck Slip. In 1792, according to the same authority, there "was little alarm about yellow fever," and probably little or none of the disease existed. In 1793, there was none of it, except a few cases brought from Philadelphia, with which it began and ended. In 1794, there was some alarm on the subject, and a Committee of Investigation was appointed; but the mortality seemed to have been inconsiderable. Most of those attacked lived or had worked in the neighborhood of the filthy slips, especially one known as "New Slip." Dr. Seaman ascribes the existence of the disease mainly to the cleaning out of this slip, which was in a filthy state, during the hot weather of the Summer.

In 1795, it is spoken of as a great scourge, though the mortality by it is not given. It became general about the easterly and lower part of the town, a part spoken of as containing the greatest amount of decomposing animal and vegetable matter. The disease occurred again in 1796, but was confined to the neighborhood of Whitehall, where there were new fillings of docks, made up of decomposing materials. It again appeared in 1797, in which year twenty-three deaths are mentioned as taking place in October, which were all that had occurred up to that time; but there were perhaps half a dozen deaths by it subsequently. One half of these deaths were in a small part of the east side of George (now Market) Street, and the greater portion of the remainder about Flymarket (the foot of Maiden Lane), both of which places are remarked as being full of filth nnd decaying materials. Dr. Seaman says that by early attention to cleanliness, the deaths were reduced to thirty, though the disease was as malignant as in 1795.

1798 was the year of the great epidemic. The fever began in August, and did not cease until the middle of November. It prevailed at first in parts where there was new-made ground, but afterwards, with less severity, in portions of the city which had been previously exempt. The mortality was ascribed to the great heat and moisture of the season, and to large quantities of spoiled beef and fish stored in different parts of the city. A heavy rain fell on the 14th of August, after which the temperature, which had been very high, fell a very little, and subsequently rose again, ranging from 82° to 90° Fah., but did not go above [90° *after* the rain. The hottest day was the 9th of August, when the thermometer rose to 96°; and from the 14th to the 18th of that month, it ranged from 78° to 90°. The highest temperature in 1795 in July was 88°, and in August, 93°—in 1796, the highest temperature in July was 88°, and in August 89°—in 1797, in July, 90°; in August 82°—in 1798, in July, 94°, and in August, 96°. The mortality in 1798 was 2,086, the population of the city at that time being about 55,000. The mortality from the same disease that year in Philadelphia, was 3,446. Twelve physicians fell victims to it in this city.

In 1799 the disease began early, several cases having appeared in July. The number increased in August, and reached its greatest hight in September, declining in October, and becoming nearly extinct by the 1st of November. The season was mild. The principal seat of the disease was the new-made ground on the east side of the city. The desertion of the inhabitants commenced early and became general, especially from parts of the city where the disease commenced, and where it raged with the most violence. The number of both attacks and deaths fell far short of those of the last year.

In 1800 it appeared only in a slight degree. Intermittent, remittent, and yellow fever prevailed together, in low, damp, and hitherto unhealthy parts of the city. From 50 to 80 deaths were ascribed to yellow fever. In only two instances did the recognized yellow fever occur in more than one person in the same family. Deaths were distributed through twenty-five streets. Dr. Seaman states that of 150 cases seen by him, all but one occurred in persons living or having stores in Pearl Street, or between that street and the East River. There was a slight frost on the 3rd or 4th of October, but the disease did not subside immediately on its occurrence; but continued for ten days afterwards. It prevailed most in September this year.

In the following year (1801), it commenced about the middle of September; and from that time to the middle October, about 140 persons died of it, besides a considerable proportion of 30 cases sent to the Marine Hospital. The greater number of deaths this year was in East Rutgers Street. The soil there was good, but there was a filthy lane in the neighborhood in a state of great neglect, and which was the resort of most degraded occupants, expelled from bawdy houses in other parts of the city, to which the authorities would pay no attention. The next principal seat of the disease was in Front and Water Streets, between Flymarket and Coffee House Slip. It also prevailed to a less extent in other parts of the city. In 1802, it does not seem to have appeared here, though it prevailed in several other parts of the country.

In the year 1803, from the 18th of July to the end of October, from 600 to 700 are reported to have died of yellow fever in the city. The first public alarm was caused by cases in Coffee House Slip and its neighborhood; but it appeared in other places about the same time, and left fewer parts exempt than in former seasons. The principal ravages of the disease were confined to the streets on the margin of the two rivers, where the inhabitants were mostly the poor, uncleanly, and dissolute classes. The weather was pleasant in June, but became excessively hot early in July; and, with the exception of four or five days, exceeded in continued intensity anything before remembered—the thermometer ranging frequently above 90°, seldom falling below 80°, the nights afforded no relief from the heat. The portions of the city first affected were early deserted.

In 1804, there was no malignant disease in any of the Atlantic cities except Charleston. The temperature of the Summer and Autumn here was mild.

In 1805, the first case appeared early in June, in Roosevelt Street,

in mild weather. On the 9th July, the weather having become hot, a case occurred in an alley opening into Maiden Lane, in a stable, which was soon after followed by two others in the same stable. Another case appeared in Water Street on the 24th, and on the 5th of August a case in Greenwich Street, and soon after, other cases of a suspicious character in other parts of the town. The weather continued warm and dry, and by the 28th of August, the drought and heat were severely felt. On that day there was a moderate fall of rain; and in less than forty-eight hours the number of cases was alarmingly increased in all parts of the city. It was declared epidemic early in September, and continued to prevail with variable severity until the latter part of October. The number of deaths reported by the City Inspector was 270. After it became epidemic, the greater part of the cases were from the low and made grounds which had been the chief seat of former epidemics. After the 20th of September it spread to the North River, and continued in Greenwich Street and its neighborhood until it ceased.

In 1806, there were several well-characterized cases of yellow fever in the course of the season, from June to November, though there was nothing approaching an epidemic; and in 1807 there were a few sporadic cases (less than twenty), mostly in September, although no cases appear to have been reported to the City Inspector during either of these two years. The year 1808 was one of exemption from the disease.

In 1809, the yellow fever occurred in Brooklyn from July until late in September, during which period there were between thirty and forty deaths. Its seat was confined to the neighborhood of a new dock, where they had been digging up material on the banks which was offensive. About twenty who took the disease in Brooklyn sickened in New York, of whom thirteen appear to have died. These persons are said not to have communicated the disease in a single instance.

From the year 1810 to 1818 inclusive, no cases of death by yellow fever are reported by the City Inspector, except a single case in 1817, nor is anything said in the journals about the existence of the disease here.

In 1819, the disease again appeared in a mild form, and hardly deserving the name of an epidemic. The first case appeared in the latter part of August, and sixty-three were reported in the whole, of which thirty-seven died, including twelve at Fort Stevens, and probably not including six among the poor sent to Fort Richmond. The weather for several weeks immediately preceding its appearance was remarkable for the unusual and continued heat. In August the thermometer at noon never stood below 80°, and during several days was at or above 90°. The atmosphere was unusually calm and there was but very little rain so that there was great suffering from drought. The disease was almost exclusively confined to the neighborhood of Old Slip. The Board of Health recommended, immediately after the occurrence of the first two cases, the desertion of that part of the city lying between pier No. 8 East River, and Wall Street, and as far back as Pearl Street, and provided quarters for one hundred and fifty poor persons at Fort Richmond.

In 1821, the yellow fever did not occur in the city; but Dr. Joseph Bayley, Health Officer of that year, gives an account of twenty-nine cases that occurred on Staten Island, "in consequence of their intercourse with the Quarantine grounds." Dr. B. was a contagionist, but he thinks that all but three or four of these cases had their origin in infection spreading from vessels at or near the Quarantine wharf, or from the washing of foul clothing brought from these vessels. He advises the abandonment of the parts of the town where the disease became fixed, and remarks that "since experience has taught us that this fatal malady can be arrested in populous places by deserting the infected spot, its ravages have become limited. If the same measures had been pursued in this city in the years 1795 and 1798, and 1803 and 1805, or in the year 1819, it is probable that an equally favorable result would have ensued." He believes that he has fixed the period of incubation of yellow fever at five or six days, and conceives that he has found "proof that the contagious air on board of vessels is not communicated 250 feet in pure air, aided by a favorable (favoring) current of wind;" though he does not doubt that it is carried a considerable distance. Of the 29 cases, 21 proved fatal. The disease did not spread to the city that year.

In the year 1822, the disease began in the city on the 10th of July, in a neat, airy, birck house on Rector Street, one door from Washington; and at or about the same time a person was attacked on the S. W. corner of Washington and Rector Streets, who was sent to the New York Hospital, and died there on the 16th. The members of the only other family living in Rector Street, between Washington and Greenwich Streets, were advised to leave the neighborhood, which they did on the 22nd, and yet one of their sons had the disease severely after reaching Long Island. The disease gradually spread up Rector Street, and through the several cross streets to Broadway, which it crossed, and afterwards traveled northward to Fulton Street, and in a southerly direction to the foot of Broad Street and Old Slip, a few cases appearing in the north-eastern side of the city. The number of cases increased until the 9th of August, before the Resident Physician was willing to announce its character. After that, the Board of Health met daily till late in October. The disease continued to spread until the 20th of September, when a very heavy rain occurred, followed by cold, strong, northerly winds for two days, by which the out-door poison, or that in the streets, seemed to be entirely destroyed. The extension of the infected district, which till then had been gradual and well-marked, ceased, and in four or five days the cases diminished till the 8th, when *not one* was reported to the Board. Shortly after, however, the poison again showed itself; but the subsequent cases appear to have arisen from infection shut up in the houses. A general removal, which took place from the lower parts of the city, was the only means of safety left the inhabitants. The number of deaths by yellow fever officially reported to the Board of Health this year from the commencement of the epidemic to its close, November 5th, was 230, the number of cases reported having been 411. It is proper to state that, according to the Report of the City Inspector for that year, the number of

deaths by yellow fever was only 166. According to the report of the Board of Health, 15 cases and 7 deaths occurred from the 10th of July to 1st August; 95 cases and 58 deaths from 1st August to 1st September; and 211 cases and 109 deaths from the 1st of September to the 1st of October. The origin of the disease was ascribed by Drs. Walters & Bayley (who wrote papers on the subject) to the landing of the cargoes of six vessels from Havana, then a sickly port. The records of the revenue department show that 2,730 boxes of sugar were landed within the limits of one hundred and twenty yards from Rector Street, between the 14th of June and the 8th of August—more than half this quantity from the 2nd to the 8th of August. This sugar was brought in decked lighters from Quarantine. Both these physicians deny the existence of any local cause adequate to produce this fever. The temperature this Summer was high, ranging as follows, at two o'clock, for four months: in June from 70° to 93°, one day only falling to 65°, standing at or above 80° on 17 days, and at or above 90° on six days; in July ranging from 81° to 96°, being at or above 85° every day but five, and at or above 90° five days; in August, ranging from 75° to 94°, falling below 80° only twice during the month, standing at or above 85° on nineteen days; and in September, ranging from 70° to 94°, standing at or above 85° on ten days at the hour mentioned. In October, the range was from 84° to 54°, but the average was not high.

Up to the twenty-fifth of August of the present year, there had been admitted to the Marine Hospital at Quarantine, one hundred and thirty-three cases of yellow fever, and in addition to this number, eighteen cases had occurred among the permanent residents within the Quarantine inclosure.

One case of the disease was received from Havana in the month of April; but no other cases were seen until June 18th, when the bark *Julia M. Hallock*, from St. Jago de Cuba, arrived, with captain, first mate, and a passenger sick with the fever. On the 21st of the month, the ship *Jane H. Gliddon*, from Havana, arrived, having a passenger and four seamen dangerously ill with it; and from the same vessel three other cases were subsequently received. These were all of a strongly-marked character; and some of them occurring many days after the ship's arrival, an infected condition of the vessel was naturally inferred, and the spread of the infection anticipated. From the ship the infection did spread, until at least twenty of the stevedores and lightermen who were engaged in unloading her, contracted the disease.

On the second of July, one case of yellow fever was received from the *Lilias*; on the third, one from the *Eliza Jane*; and on the sixth, the ship *Lady Franklin* arrived from Matanzas having eight cases of it, and one seaman dead with it. Thus the prevalence of this malady seemed fairly inaugurated for the season.

The infected vessels were principally freighted with sugar; though the *Jane H. Gliddon* had a portion of a cargo of *rags*, about thirty bales of which were subsequently stored in an open shed upon the U. S. Government Dock at Quarantine.

On the fourteenth of July, a stevedore, who had been engaged in

unloading these rags from the *Gliddon*, was admitted to the Marine Hospital, with black vomit. From this date, the fever rapidly spread among the laborers employed in unloading the infected vessels, whose cargoes were being lighted to the Atlantic Docks, Brooklyn. Thirty of these men, sick with the fever, have been conveyed to the Marine Hospital from the city, and from various parts of Staten Island.

Cases of yellow fever have already been received from as many as thirty different vessels, arriving from the various West Indian ports. Besides these, a considerable number of cases have been admitted from the city, in which the source of the infection could not be completely made out, owing to the moribund or delirious condition of the patients; but in all cases, it has been ascertained that these persons had been freely exposed near the waterside in the lower wards of the city.

As regards the special cause, or causes, which are believed to have introduced an endemic of yellow fever within the Quarantine inclosure, it seems highly probable that the infected goods which were landed upon the Government Dock, together with the close proximity of highly infected vessels lying at anchor in the stream, produced an infected state of the atmosphere in a narrow zone by the waterside. The physician of the Marine Hospital reports that this endemic appears to have ceased; and it is worthy of remark that the infected goods referred to, and the vessel near by, were long since removed.

That our readers may see how the present compares with the past years of the prevalence of yellow fever at the Quarantine establishment, we append the following statistical table, which has been prepared for another purpose by Dr. Harris, the physician of the Marine Hospital, and which he has kindly placed at our disposal:—

A Tabular View of the Statistics of Yellow Fever as it prevailed in the Port of New York, at the Marine Hospital, from 1799 *to* 1856

	1799	1800	1801	1802	1803	1804	1805	1806	1807	1808	1809	1810	1815	1816	1817	1818	1819	1820	1821	1822	1823	1824
Admitted,	163	38	35	5	141	8	43	2	3	1	2	1	19	2	5	7	26	2	26	105	8	28
Discharged,	87	17	19	3	72	3	18	2	..	..	..	..	12	2	1	3	7	..	10	58	3	20
Died,	76	21	16	2	69	5	25	..	3	1	2	1	7	..	4	4	19	2	16	47	5	8

	1825	1826	1827	1828	1829	1830	1832	1833	1834	1835	1838	1839	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852	1853	1854	1855
Admitted,	2	2	6	1	4	2	1	12	3	2	26	4	18	9	..	2	1	26	..	..	..	1	44	45	12
Dischar'd,	1	.	2	1	4	1	..	10	2	..	18	..	15	7	..	2	1	14	..	..	..	..	30	25	7
Died,	1	2	4	..	..	1	1	2	1	2	8	4	3	2	..	..	..	12	..	..	..	1	14	20	5

The average mortality at this Hospital will be found to have been about 35 per cent.

The disease has also appeared this year on the southern end of Long Island, in that portion of Kings county lying along the Narrows from

Red Hook to Fort Hamilton, the first case having appeared at Fort Hamilton, in the latter part of July, in the practice of Dr. Bailey, Surgeon of the Fort. It then appeared in the village of Fort Hamilton, and soon after at Yellow Hook and Gowanus, and finally at Red Hook; the latter place being in the confines of Brooklyn. According to the statistics by Dr. Whiting, which appear to have been collected with care, 73 cases and 35 deaths had occurred in this region up to the 22nd of August, when the disease seemed to be decidedly on the decline. Dr. W. has not the least doubt that the disease is wholly and purely yellow fever, notwithstanding the doubts on this point which have been expressed by some. Most of the cases have occurred within a few rods of the shore, and none at a distance of more than fifty rods, a fact which seems fully to warrant the opinion that the disease owes its origin to infected vessels at Quarantine and Gravesend Bay. In no case has it been communicated to a person living out of this immediate locality. These vessels have been removed, and the disease has now almost ceased. Another account (newspaper) states that the disease first appeared on a bluff overlooking Gravesend Bay, where infected vessels were lying at anchor, and gives fifty-eight as the number of deaths at Fort Hamilton and Yellow Hook. All accounts agree as to the origin of the disease from infected vessels at Quarantine.

The weather during the last two weeks of July was very hot and dry, the mean average of the thermometer having been 85° and 81°. In the early part of August, there was a very heavy fall of rain, after which the heat was somewhat moderated; and during the last half of August, the weather was unusually cool, for the season, the mean average of the thermometer during the last two weeks having been 71° and 69°.

Important Work.—*Climatology of the United States, and of the Temperate Latitudes of the North American Continent.*—Embracing a full comparison of these, with the Climatology of the Temperate Latitudes of Europe and Asia, and especially with regard to Agriculture, Sanitary Investigations, and Engineering, with Isothermal and Rain Charts, for each season, the extreme months of the year. Including a Summary of the Statistics of Meteorological Observations in the United States, condensed from recent scientific and official publications. By Lorin Blodget, author of several recent Reports on American Climatology, Member of the National Institute, and of various learned societies. One volume, large octavo, 450 pages. Price Four Dollars.

Prospectus.—The above work, constituting a thorough treatise upon the Climatology of the Temperate Latitudes of North America, and particularly of the new Interior and Pacific Districts of the United States, is now nearly ready for the press, and will be published as soon as a sufficient number of subscriptions are received to form a basis for the first edition.

It will be Illustrated by Twelve Superior Engravings, on a new Outline Map, 10 by 22 inches, embracing the whole North American Continent from the twenty-fifth to the fiftieth degree of north latitude.

Five of these are Illustrations of the Distribution of Heat in Isothermal lines, lithographed in colors, and five are shaded in tinted charts, representing the Distribution of Rain. The former are after the model of Humboldt's Isothermal Lines, the latter are new—both being new as positive scientific results for the North American Continent. The next is an illustration of the Comparative Temperatures of the two Continents in Temperate Latitudes, similar to Humboldt's Isothermal Chart, but embracing the corrections derived from the most recent observations, those in the United States coming down to June, 1855. All these results are based on the most complete summaries of nearly all existing American observations, including those taken by the officers of the Medical Department of the United States Army.

The volume also embraces the Report on the Distribution of Temperature and of Rain in the United States, based on and accompanying the Climatological Statistics of the Surgeon General's Office recently prepared for publication by the author.

Of the merit of this work of Professor BLODGET we can confidently speak, having, through the kindness of the author, had the pleasure of examining a portion of it in manuscript. In research into the meteorology of this country, its physical characteristics, etc., it far exceeds any work yet published. In truth, it leaves uninvestigated nothing of importance relating to the physical geography of the United States—its sanitary relations, its climate, distribution of heat and rain, comparison of our own with European climates, as well as different sections of our own country with each other, etc., etc. We may add, that it is highly commended by Lieutenant MAURY, Prof. DANA, and numerous others.

No person is better qualified for the task of preparing a work on the Climatology of the United States than Prof. BLODGET. With a mind naturally given to the investigation of natural phenomena, he has devoted several years to the study of the meteorology, climatorial characteristics, etc., of this country at the Smithsonian Institute, where, until recently, he was in charge of the department devoted to this research.

As this work is to be published only by subscription, we recommend all who wish to subscribe, to forward their names to J. B. LIPPINCOTT & Co., Philadelphia, who are its publishers.

Medical Colleges.—We take occasion to notice the various changes which have been made in the Medical Colleges, whose announcements have appeared in our advertising sheet during the past year,

College of Physicians and Surgeons.—The present location of this college, corner of 4th Avenue and 23rd Street, is very favorable for students. We notice several changes in the faculty, viz.:—the resignation of its presidency by Dr. Stevens, and his appointment to the honorable position of an emeritus professorship, and the election of Dr. Cock, its former Vice-President, to the place vacated by Dr. Stevens. Dr. Delafield is elected Vice-President, and Professor Emeritus of Obstetrics. Prof. Le Conte has resigned the professorship of Chemistry, and Samuel St. John, M.D., late Professor of Chemistry in the Cleveland (O.) College, is his successor. Session

commences October 20th, 1856, and continues until the 12th of March, 1857.

University of New York—Medical Department.—The faculty of this school has undergone no changes during the last year. Its session will commence on the 13th of October, 1856, and continue until the 1st of March, 1857. This institution is very conveniently located, (No. 107 East 14th Street,) for students desiring to attend the practice of the various hospitals open to students.

The New York Medical College.—This college is located in 13th Street, between 3rd and 4th Avenues. The only change which we notice in the faculty of this college is the resignation of Prof. E. H. PARKER, Prof. of Anatomy, and the appointment of TIMOTHY CHILDS, M.D., late of the Pittsfield School, Mass., as his successor. Its Annual Course of Lectures will commence the second week in October, 1856, and continue until the first week of March, 1857.

Medical Institution of Yale College.—The Course of Lectures in this school commences on the 18th of September, and continues four months. We notice the following changes in its faculty during the last year, viz. :—the resignation of Prof. TIMOTHY P. BEERS, Professor of Obstetrics, and the appointment of PLINY A. JEWETT, M.D., to the vacant chair.

Castleton Medical College.—In this college two courses of four months each, are given annually, viz. :—A *Spring Session*, commencing on the last Thursday in February, and an *Autumnal Session*, commencing on the first Thursday in August. The faculty remains unchanged.

University of Buffalo—Medical Department.—The session of this college commences on Wednesday, the 6th of November, and continues sixteen weeks. Important accessions have been made to the faculty of this school during the last year. Prof. FLINT having withdrawn from the Louisville school, has received the appointment of Professor of Clinical Medicine and Pathology, and Prof. MOORE, late Professor of Surgery in the Columbus (O.) school, that of Professor of Surgical Anatomy and Surgical Pathology. Dr. BOWEN, formerly Professor of Anatomy in the Geneva Medical College, has the appointment of Demonstrator of Anatomy.

Geneva Medical College.—This college commences its annual session on the first Wednesday of October, and continues sixteen weeks. The only change in the faculty consists in the appointment of ALFRED BOLTER, M.D., to the chair of Institutes and Practice of Medicine, vacated by Prof. SWEETZER.

Pennsylvania College—Medical Department.—The regular Course of Lectures in this college will commence on Monday, October 13th, and continue until the 1st of March. Important changes have recently been made in this college. Prof. ALLEN has resigned the Chair of Anatomy, and T. G. RICHARDSON, M.D., late Demonstrator of Anatomy in the Louisville school, has been appointed his successor. Dr. Richardson is the author of an excellent work on Anatomy, and will

be an important accession to this vigorous school, which has become a powerful competitor of the older medical colleges of Philadelphia.

Clinical Advantages of New York.—We have on former occasions noticed the Clinical advantages of New York, by giving the statistics of its hospitals and public medical institutions. We shall at this time merely notice those institutions which are open to students.

The Bellevue Hospital.—This hospital is situated at the foot of 26th Street, on E. River, and is easy of access to students. It contains about 700 beds, and accommodates from 3,000 to 4,000 patients annually. The physicians and surgeons visit the wards daily, and students are allowed to accompany them, and study, without reserve, the great variety of diseases with which the institution is filled.

The New York Hospital.—This hospital is located in Broadway, near Duane Street, and has about 400 beds. Clinical instruction is given daily by the physicians and surgeons in attendance. The number of surgical diseases treated in this hospital is very great, and affords the students unsurpassed advantages for the study of this branch of medicine.

Jews' Hospital.—This hospital is located in 28th Street, between 7th and 8th Avenues. From the First Annual Report we learn that it has 36 beds, and received during the year 195 patients. It is opened daily to students from 9 to 10 o'clock, A.M., and from 5 to 6 o'clock, P.M., at which hours the resident physician, Dr. BLUMENTHAL, visits the wards.

The Emigrants' Hospital.—This hospital is located on Ward's Island, the largest of these institutions, containing 1,500 beds, and during the last year furnished hospital accommodations for more than 15,000 patients. Among these are found all varieties of diseases—Surgical, Medical, and Obstetric, with a very large proportion of those peculiar to children (not less than 1,800 being annually treated), and of diseases of women in the puerperal state—701 women having been delivered, in the obstetric division of this hospital, during the past year.

Blackwell's Island Hospitals.—In these hospitals over 10,000 patients were treated during the year 1855. They offer opportunities for studying all forms of uterine disease, of venereal diseases, delirium tremens, cutaneous diseases, diseases of old age, etc., such as cannot be found in any other hospital in the country.

The New York Eye Infirmary.—This institution is situated at the corner of 2nd Avenue and 13th Street, in the immediate vicinity of the Medical Schools. Over 3,000 patients were treated at this Infirmary during the last year. The surgeons attend daily, and give instruction upon the cases as they present themselves.

The Ophthalmic Hospital.—This institution is located at No. 6 Stuyvesant Place, and is easy of access. Over 900 patients were treated at this hospital last year. A systematic Course of Lectures on Ophthalmic Surgery is annually given at this institution by Dr. STEPHENSON, one of the attending surgeons.

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